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CONFLICT MANAGEMENT IN SCHOOLS

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Conflict Management in Schools" submitted by Earl Leroy Hurlbert in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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ABSTRACT

The purpose of this study was to investigate the management of interpersonal conflict between teachers in schools. The variables selected for study consisted of the leadership style of principals, the attitude of principals toward conflict between teachers, methods used by principals to manage conflict between teachers, and seven demographic variables pertaining to principals and their schools. Emerging from the basic problem of the study were two subproblems:

1. Are there any relationships between the following variables: (1) attitudes of principals toward conflict, (2) the leadership styles of principals, (3) the principals' methods of managing conflict, and (4) demographic factors pertaining to the principals and their school situations? 2. Do principals of varying leadership styles and attitudes toward conflict employ different methods for the management of conflict between teachers?

Fiedler's Least Preferred Coworker (LPC) rating scale was the instrument used to obtain a measure of the principal's leadership style. Instruments for measuring the attitude of principals toward conflict (ATC) and methods of management (MOM) used by principals in managing conflict between teachers were developed by using a pilot study and a panel of judges. Five methods for the management of conflict were investigated and these were referred to as Confrontation, Smoothing, Compromising, Withdrawing, and Forcing. All public schools at the elementary level in the city of Saskatoon comprised the sample for the study. Pearson product moment correlations and partial correlation procedures were used to explore

relationships between the ATC, LPC, and MOM variables as well as between variables pertaining to the principals' age, years of post secondary education, years of specialization in Educational Administration, years of experience as a principal, years served as a principal in the present school, and number of full-time teachers on staff.

Significant positive correlations were found between the following pairs of variables: (1) age and experience, (2) age and years served in present school, (3) post secondary education and experience, (4) experience and years served in present school, (5) experience and Withdrawing, (6) LPC and Confrontation, (7) ATC-individual and ATC-organizational, (8) Compromising and Withdrawing, (9) Compromising and Forcing, (10) Withdrawing and Forcing, and (11) Withdrawing and Smoothing. Significant negative correlations were found between (1) experience and ATC-individual, (2) experience and Confrontation, (3) years served in present school and ATC-individual, (4) years served in present school and Confrontation, (5) LPC and Forcing, (6) Confrontation and Withdrawing, and (7) Confrontation and Forcing.

High and low LPC-ATC groups of principals were examined in terms of differences in MOM variances and mean scores. A significant difference between the means of high LPC-ATC principals and low LPC-ATC principals on the variable of Confrontation was found with the high LPC-ATC group having the higher mean score. A statistically significant difference in variances on the Smoothing variable was also found with the low LPC-ATC group having the greater amount of variance in Smoothing scores.

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CHAPTER I

THE PROBLEM

I. INTRODUCTION

The concept of interpersonal conflict involving educational personnel is of considerable importance to the administration of educational institutions. Not only should administrators be sensitive to the phenomenon of conflict when it appears within the educational system but they should also be cognizant of some of the variables which may attend situations of conflict. Because some variables may be modified significantly by an administrator such as a school principal, an understanding of the variables and possible relationships between them would appear to be of considerable value for the successful administration of schools.

In an attempt to contribute to a growing body of theory about organizational conflict, this study was designed to investigate the management of interpersonal conflict in public schools. The study was concerned with principals of varying leadership styles and attitudes toward conflict and the methods used by these principals for managing conflict between teachers.

II. CONCEPTUAL FRAMEWORK

There is a large and growing body of literature on the subject of interpersonal conflict. The literature examined by the researcher was concerned primarily with the type of non-violent conflict usually found wherever socially organized people live and work together. Situations of interpersonal conflict were often referred to in this literature by use of the interchangeable terms, organizational conflict and social conflict.

Little more than a decade ago, Thompson (1960:399) stated, "Conflict in organizations is usually considered by students of organizations and by administrators as something to be avoided or eliminated." However, the quest for more knowledge about social conflict has resulted in an increasing number of writers who view conflict as an often useful and constructive social phenomenon. For example, Coser (1956) elaborated upon the functions of social conflict and Boulding (1964) argued for the management of conflict in creative and useful ways rather than for its immediate termination.

The literature indicated that not only are there varying attitudes in society toward conflict but also that distinctly different methods of managing organizational conflict may be employed. For example, Assael (1969), during a two-year exploratory study of manufacturer-dealer relations between General Motors and its dealers, examined organizational and political conditions which encouraged a systematic, equitable, and profitable resolution of conflict. Assael then established criteria with which to identify the constructive

management of conflict within the automobile distribution system. Works by Blake and Mouton (1964), Lawrence and Lorsch (1967), and Burke (1970) made reference to five different methods for managing conflict which are termed Forcing, Withdrawing, Compromising, Smoothing, and Confrontation.

However, even though some methods of managing conflict may be more constructive than others, empirical studies by Burke (1970), which focused upon the use of general strategies or methods for the management of conflict, suggested that leaders' attitudes regarding the desirability or undesirability of conflict constitute a critical variable in the choice of managerial methods for handling conflict. Furthermore, the work of Fiedler (1967) indicated that the leadership style of a principal might also influence the methods used for managing conflict between teachers. With reference, then, to the variables of attitude toward conflict, leadership style, and methods of managing conflict, this study was concerned with the management of conflict between teachers by school principals.

The Problem Delineated

The general problem to which this study was addressed was to investigate the management of interpersonal conflict between teachers in schools. The study was concerned with the attitudes of principals toward conflict, the leadership styles of principals, the methods used by principals to manage conflict between teachers, and demographic variables pertaining to principals.

Emerging from this basic problem were the following sub-

problems:

1. Are there any relationships between the following variables: (1) attitudes of principals toward conflict, (2) the leadership styles of principals, (3) the principals' methods of managing conflict, and (4) demographic factors pertaining to the principals and their school situations?

2. Do principals of varying leadership styles and attitudes toward conflict employ different methods for the management of conflict between teachers?

III. IMPORTANCE OF THE STUDY

In an analysis of modern organization theories, Mouzelis (1967:146) observed that "the most recent and interesting trend" in the literature was a growing preoccupation with social power and conflict. Stated Mouzelis, "Although we are very far from an elaborated theory of organizational conflict, there is an increasing realization of its crucial importance for the comprehension of organizational problems."

This study of conflict management in schools may be important in the following ways:

1. The study may make some contributions to a growing body of organization theory concerned with conflict.

2. This research may help to meet the need for the empirical study of conflict at the school level.

3. Knowledge generated by the study might be used in the academic preparation of educational administrators as well as for

in-service programs involving administrators in the field.

IV. DEFINITION OF TERMS

Social Conflict or Organizational Conflict

These terms refer to "any social situation or process in which two or more social entities are linked by at least one form of antagonistic psychological relation or at least one form of antagonistic interaction" (C.F. Fink, 1968:456).

Interpersonal Conflict Between Teachers

For purposes of this study, interpersonal conflict between teachers will mean difference or disagreement between two or more teachers.

Leadership Style

This refers to the underlying need structure of the individual principal which motivates his behavior in various leadership situations and which is measured by the Least Preferred Coworker (LPC) instrument (Fiedler, 1967:36).

Attitudes Toward Conflict (ATC)

This refers to a principal's judgment, as measured by the ATC instrument, regarding the question of whether conflict between teachers is likely to be functional or dysfunctional.

Methods of Managing Conflict

These methods refer to the five methods of management (MOM)

outlined by Blake and Mouton (1964) which are termed Forcing, Withdrawing, Compromising, Smoothing, and Confrontation. For purposes of this study each of the five methods was defined as follows:

Forcing method. To use the Forcing method for the management of conflict is to handle conflict by employing authority, penalties, or sanctions. Inherent in the use of this method is the suppression of conflict and conflict is suppressed when its expression is prevented.

Withdrawing method. To use the Withdrawing method for the management of conflict is to handle conflict by steering clear of or retreating from all situations of conflict whenever possible. Inherent in the use of this method is an attempt to ignore all conflict situations by not displaying any overt concern or manifest action pertaining to conflictive issues.

Compromising method. To use the Compromising method for the management of conflict is to handle conflict by yielding, twisting, turning, and bending in an attempt to find a course down the middle that splits the difference. Inherent in the use of this method is the search for an expedient means of automatically splitting the difference by an accommodation in which no one "wins all" but no one "loses all."

Smoothing method. To use the Smoothing method for the management of conflict is to handle conflict by promoting harmonious

and accepting relationships among personnel. Inherent in the use of this method is an active attempt to accentuate the positive aspects of a situation and play down or smooth over all negative aspects.

Confrontation method. To use the Confrontation method for the management of conflict is to handle conflict through the use of an open problem solving approach which both allows and encourages those involved in the conflict to work through the ideological and emotional components of the disagreement. Inherent in the use of this method is the attempt to achieve an objective exploratory examination and evaluation of differences so as to find a solution which is more oriented to the long-term interests of everyone concerned rather than to temporary expediency.

V. ASSUMPTIONS, DELIMITATIONS, AND LIMITATIONS

Assumptions

The basic theoretical assumption was that conflict between teachers does exist and is of some concern to principals.

A second assumption was that principals possess varying attitudes toward conflict and that there is some correspondence between principals' attitudes and their behavior in managing conflict between teachers. A third assumption was that at least five general but different methods for managing conflict exist in the organizational world.

Delimitations of the Study

This investigation of conflict management in schools was

limited to a study of the principal and his or her methods of managing conflict between teachers on staff. Consequently, no provision was made for investigating conflict between the principal and the teaching staff or for investigating the management of conflict between teachers by other administrative personnel within the organizational structure of the school.

Limitations of the Study

The study was limited by the unavilability of seemingly valid and reliable instruments for measuring the attitudes of principals toward conflict and the methods used by principals to manage conflict between teachers. With reference to the validity and reliability of the instruments which were developed there appeared to be some bias toward the word, conflict. Some teacher respondents and pilot study participants had difficulty in equating conflict with difference or disagreement.

A further limitation was that generalizations drawn from this study were limited to elementary grade schools in the Saskatoon public school system. The presence of other variables in other populations might result in significantly different findings and conclusions if further empirical research were conducted.

VI. ORGANIZATION OF THE THESIS

The following chapter deals with theory and research related to the problem which has been described and delineated. Chapter III describes the instruments used in the study including their development

and their reliability and validity. It also describes the sample of principals and teachers used in the study along with procedures used for collecting data.

Chapter IV is concerned with the statistical analysis of the data and all analyses carried out on the data are described. A discussion of the findings resulting from the analysis of data is also contained in Chapter IV. The final chapter of the thesis includes a summary of the study, general conclusions, and implications of the findings for the practice of educational administration and for further research.

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CHAPTER II

RELATED THEORY AND RESEARCH

Literature examined by the researcher appeared to support the proposition that school principals of varying leadership styles and attitudes toward conflict are likely to employ different methods for the management of conflict between teachers. Consequently, theory and research related to the concept of social conflict and to the variables of attitude toward conflict, leadership style, and methods of managing conflict are presented in this chapter.

I. SOCIAL CONFLICT

The Nature and Pervasiveness of Conflict

> Conflict is an activity that is found almost everywhere. It is found throughout the biological world, where the conflict both of individuals and of species is an important part of the picture. It is found everywhere in the world of man, and all the social sciences study it. (Boulding, 1962:1)

The literature is replete with reference to conflict between old and young, strong and weak, male and female, and rich and poor. Jessie Bernard (1949:103) concluded that conflict is universal, that it is basic, pervasive, and latent, and that society must take a certain amount of conflict for granted as no community of man is free from it. Bernard pointed out that sometimes conflict may exist in latent form for years before there is a formulation of issues or a crisis, and that it is a mistake to limit thinking about conflict to the overt

phase of crisis. Bernard emphasized that if thinking about conflict is limited to the overt phase, the study of social conflict becomes merely a study of the manifestation of conflict in the form of strikes or riots. Bernard also put conflict in more accurate historical and social perspective by observing that conflict need not be violent, that in its most spectacular and attention-compelling form it is violent as in wars, riots, fist fights, pogroms, and persecutions, but, said Bernard, nonviolent conflict is more pervasive. Bernard (p. 106) stated, "Without any show of violence at all there exist conflicting schools of thought, theories, creeds, and dogmas in all communities to at least some extent."

Conceptual frameworks, assumptions, and theories regarding conflict are usually related to economic, political, philosophical, and cultural values. Writing in The Journal of Conflict Resolution, C.F. Fink (1968) stated that piecemeal approaches to a theory of social conflict have resulted in some theorists defining it in psychological and motive-centered terms, where the emphasis is focused upon underlying motivational patterns; some defining social conflict in behavioristic and action-centered terms, where the focal point is overt social interaction; and some theorists distinguishing between such terms as conflict and competition, manifest conflict and latent conflict, and hostile sentiments and friendly conflict. In presenting an example of the prevailing confusion, Fink (p. 430) observed that conflict as defined by Stagner (1967) is synonymous with competition as defined by Doob (1952).

Mary Parker Follett (1940) saw conflict as the essence of life,

something that cannot be avoided, and something that should not be feared. Aside from warfare, conflict is to be thought of as difference, difference of opinions or of interests: "For that is what conflict means--difference." (Follett, 1940:30) Although some people may wish to abolish conflict, said Follett, she conceived of difference or diversity as life's most essential feature.

Georg Simmel (1955) perceived conflict to be a form of sociation. Maintaining that the sociological significance of conflict had never been disputed and that irrespective of any phenomena that result from conflict or that accompany it, Simmel called conflict interaction and sociation. Social conflict, according to Simmel, cannot possibly be carried on by one individual alone and must certainly be considered as sociation. ". . . dissociating factors--hate, envy, need, desire--are the causes of conflict; it breaks out because of them," says Simmel (1955:13). In Simmel's view, consequently, conflict is designed to resolve divergent dualisms and is a way of striving for something positive, "even if it be through the annihilation of one of the conflicting parties."

Ralf Dahrendorf (1959) adopted a broad and general approach to the definition of conflict. Unlike the behaviorists referred to by Fink, Dahrendorf did not consider overt struggle as the criterion for identifying social conflict. Instead the term was used to include situations of latent conflict not involving any overt or manifest struggle as well as to include various types of social interaction. Arguing that conflict may assume the form of civil war or of a well-regulated negotiation, and that although some authors distinguish

between conflicts and tensions, conflicts and disputes, conflicts and contests, or--most frequently--conflict and competition, Dahrendorf (p. 135) concluded:

> I am using the term "conflict" in this study for contests, competitions, disputes, and tensions as well as for manifest clashes between social forces. All relations between sets of individuals that involve an incompatible difference of objective--i.e., in its most general form, a desire on the part of both contestants to obtain what is available only to one, or only in part--are, in this sense, relations of social conflict.

C.F. Fink (1968:455-56), after an exhaustive examination of conceptual difficulties in formulating a theory of social conflict, concluded that the aim of developing a general theory of social conflict can best be pursued if theorists adopt the broadest possible working definition of social conflict. Fink summarized his findings and conclusions by setting forth his definition of social conflict as "any social situation or process in which two or more social entities are linked by at least one form of antagonistic psychological relation or at least one form of antagonistic interaction."

The Fink definition of social conflict is based upon the premises that fundamental to the whole enterprise of developing a theory of conflict is the need for banishing ambiguity from the term "social conflict," and that the task of cutting through the veil of ambiguity has more to do with terminology than with incompatible concepts. Consequently, the Fink definition of social conflict accommodates static situations of latent conflict, dynamic processes of manifest conflict, regulated and unregulated struggle, rational and irrational violence, physical and psychological antagonism, overt and subtle antagonism. Antagonism, according to Fink, is the common

element in all social conflict.

Some Specific Sources of Conflict

The causes of social conflict appear to be very complex and have not always been agreed upon by social scientists. An economic interpretation of social conflict is represented by the work of Thomas Carver. Carver (1915) maintained that utility and scarcity, and those factors alone, were necessary to give value to a thing, whether that thing was a commodity or a service. Out of the fact of economic scarcity, with its inevitable conflict of interests, said Carver, emanated economic, moral, and aesthetic values, and emerged social, political, and legal institutions. Reflecting the school of thought which interpreted social conflict in terms of economic motivation, Carver expanded the thesis that the ultimate basis of all social conflict was found in economic scarcity of one form or another. The work of Lewis Coser (1956) was also based upon the premise that in every social structure or system there are occasions for conflict because individuals and subgroups have a tendency to make rival claims to scarce prestige, resources, or positions of power.

Kahn and Boulding (1964) argued that because power and the related concepts of control and influence have to do with change, the implications for conflict are inevitable. In the introductory pages, Robert Kahn quoted R.A. Dahl in arriving at a rationale for inexcapable implications regarding organizations, power, and conflict: "My intuitive idea of power, then, is something like this: A has power over B to the extent that he can get B to do something that B would not

otherwise do." Kahn stated that the existence of conflict, which he defines as disagreement or opposition, gives rise to power and to the exercise of power. However, Kahn also concluded that because a person's equilibrium will be changed by the exercise of power, power inevitably begets conflict in some form and in some degree. In this sense power, organizations, and conflict were viewed by Kahn as correlates where conflict is maximized when any drive to power is neurotic rather than pragmatic or instrumental. John K. Galbraith also supports the contention that differentials in power, prestige, or resources in western societies are often contributing factors in power struggles and social conflict. For example, Galbraith (1952:118) in theorizing about power formations in the field of economics stated, ". . . , private economic power is held in check by the countervailing power of those who are subject to it. The first begets the second."

Various writers refer, either directly or indirectly, to societal and/or organizational structure as a source of conflict: Dahrendorf (1958) constructed a model for the structural analysis of conflict by viewing social conflict as conflict among groups which emerges from the authority structure of "Imperatively co-ordinated groups." Included in such groups are industrial enterprises, universities, and chess clubs. Charles E. Bidwell (1965) assumed that school systems are to some degree bureaucratic and Robert K. Merton (1940) argued that in bureaucratic organizations adherence to rules may be originally conceived as means but because of goal displacement become ends when instrumental values become terminal values. While recognizing that such a process often leads to frustration and

antagonism, Merton said, however, any failure to conform to rules will arouse antagonism from those who have identified with the legitimacy of the rules.

Victor A. Thompson (1961) argued that monistic hierarchical institutions, where superordinate roles are chiefly characterized by rights and subordinate roles by duties, give rise to human relationships which duplicate childhood and deny adulthood. Thompson assumed the result would be conflict even though the rights of the superordinate role in conjunction with the concomitant duties of the subordinate role appear to preclude the legitimacy of conflict. Joseph A. Litterer (1966:181) stated that particular organizational elements create conditions which affect the perception and motivation of organizational members and result in conflict. Four principal variables or organizational situations which produce conflict were listed as win-lose situations, competition over means utilization, status incongruency, and perceptual differences. An example of the first type is an inspection system where the inspector is hired to find errors--the result of someone else's output.

One cause of social conflict which was postulated by such writers as Bernard (1949), Simmel (1955), and Coser (1956) is related to group processes or functions concerned with the unity and cohesiveness of a particular group or organization. According to this theory a group's complete victory over its enemies is not always fortunate as victory lowers the energy which holds the group together and allows dissolving forces to gain hold. Within that context astute leaders anxious to maintain or extend group boundaries and cohesiveness will, when necessary, nurture conflict by searching for

enemies. Possible examples of such strategic conflict are Hitler and the Jews, the Thirteen original American colonies, and Bismarck's unification of Germany. Georg Simmel (1955), while shifting back and forth between sociological and psychological discussion of reasons for conflict, recognized such phenomena as threat, hate, jealousy, and hostility drives. Two of Simmel's conclusions were as follows: (1) the presence of an hostility drive may add itself as a reinforcement--like the pedal on the piano--to controversies due to other causes, and (2) a conflict may spring from a simple lust to fight.

II. ATTITUDES TOWARD SOCIAL CONFLICT

> Opinion, attitude, belief: These terms do not have fixed meanings in the literature, but in general they refer to a person's preference for one or another side of a controversial matter in the public domain--a political issue, a religious idea, a moral position, an aesthetic taste, a certain practice (such as how to rear children). Opinions, attitudes, and beliefs (hereafter, OAB's) are rational and/or emotional judgments on such questions. (Berelson and Steiner, 1964:557)

Berelson and Steiner (p. 558) stated that OAB's differ from one another in their generality or in the intensity with which they are held and that opinions commonly refer to topical or short-run judgments while attitudes are somewhat more enduring with beliefs being more basic still. They observed, however, that opinions may be called impressions or guesses, attitudes called views or convictions, and beliefs called values or sentiments. In conclusion, Berelson and Steiner (p. 558) stated, "There are, however, no hard-and-fast boundaries for the terms, so that one man's opinion may be another man's attitude and still another man's belief."

With reference to attitudes toward conflict, numerous writers underscored the importance of acquiring more knowledge in this area. Boulding (1962:305-308) observed that there is no simple operational definition for differentiating between conflict which is bitter and destructive and conflict which is fruitful and constructive. Instead, said Boulding, such information is dependent upon a complex structure of attitudes and evaluations. Boulding stated that dialectitians like Marx and sociologists like Coser may defend conflict as an instrument of progress and social integration but the common prejudice is that conflict is discord, and is the opposite of meaningful harmony. Nevertheless, L.R. Pondy (1969:503) concluded, "That attitudinal measures involve considerable problems does not mean that attitudes are unimportant in the study of conflict." R.J. Burke (1970:406-407) referred to three separate investigations of superior-subordinate conflict as well as to other empirical research regarding conflict to point out that subordinates can be seen either as trouble-makers or as idea men and innovators depending on the leader's attitude. With reference to whether differences and disagreements lead to dissatisfaction and unpleasant experiences or to innovation and creativity, Burke stated that research has shown one of the critical variables to be a leader's attitude toward disagreement.

H.G. Frederickson (1969) referred to the role conflict literature to argue that attitudes are relatively accurate predictors of behavior and the probabilities are strong that attitudes toward conflict greatly influence behavior in conflict situations. Frederickson (p. 604) stated, ". . . , and since the Gross et al. (1957) study

indicated that attitudes toward conflict are relatively accurate indicators of behavior in conflict situations, the research results presented here have implications, not only for organization theory but for policy making." Nevertheless, Berelson and Steiner (1964:576) made the following observation:

> Behavior, being visible, is more responsive to extreme pressures and accommodations. OAB's, being private until expressed, can be maintained without even being subject to question or argument. And there is no necessary reason for OAB's and behavior to be in harmony: we are polite to acquaintances we really don't like, we go along with the majority in a committee action rather than make a fuss, we go to the polls even though we really don't care about the outcome.

When Conflict is Viewed as Functional

Georg Simmel (1955:15-16) stated that there probably does not exist a social unit in which convergent and divergent currents among its members are not inseparably interwoven and that an absolutely harmonious group would not only be empirically unreal but would show no real life process. Simmel maintained that society, in order to have any form at all and attain a determinate shape, needs harmony and disharmony, association and competition, that discords are not always negative instances or sociological liabilities, and that, "We must allow the total meaning of our existence to grow out of both parties." For Simmel (pp. 9-10) every social phenomenon contains a multiplicity of formal and informal processes such as subordination and superordination or intimacy and distance. Simmel concluded that because sociation always involves harmony and conflict, attraction and repulsion, love and hatred, social relationships are never pure: "There is no 'pure' conflict in social life, just as there is no

'pure' cooperation."

In defining conflict as difference, the essence of life and individuality, Mary Parker Follett affirmed that the test of progress is neither likenesses nor unlikenesses (difference) but what is done with the unlikenesses. Follett (1940:30-35) argued that the appearance of difference or conflict may be a sign of health and a prophecy of progress, that conflict (difference) cannot be avoided and should be constructively and positively used or set to work as man integrates his interests into a new creative synthesis. In writing about creative conflict, Jessie Bernard (1949) stated that since people live in a world of never-ending conflict, mankind must learn how best to handle it, and that managing conflict constructively is a teachable skill. Referring to the fact that at all levels of community living from the hamlet to the United Nations one of today's most urgent problems is how to handle conflict constructively rather than destructively. Bernard called for issues to be resolved on a nonpersonal, nonvindictive, objective level. Like Follett, Bernard (p. 129) too, made the following observation: "In fact, it is often possible for a new synthesis to arise from conflicting points of view so that, instead of either side losing any vital ground, each may gain."

Litterer (1966) stated that conflict is a controlable element in organizations and can be adjusted to minimize its dysfunctional and maximize its functional characteristics. Litterer viewed conflict as being functional to an organization when it energizes people to action, adds zest to certain activities, leads to needed innovation and change, serves as an essential portion of feedback in a cybernetic system, or

meets the needs of some healthy personalities seeking tension.

Discussion of the functions of social conflict inevitably leads to the work of Coser (1956). First it is important to note that Coser described conflict as a form of socialization: "Social conflict always denotes social interaction, whereas attitudes or sentiments are predispositions to engage in action." (Coser, 1956:38) Secondly, expanding upon the theory of Georg Simmel, Coser (p. 31) stated, ". . . , both "positive" and "negative" factors build group relations. Conflict as well as cooperation has social functions. Far from being necessarily dysfunctional, a certain degree of conflict is an essential element in group formation and the persistence of group life." Because Coser in most instances was dealing with group structure and group processes, functional was equated with "desirable" results for a particular group and dysfunctional with "undesirable" effects on the group. Coser theorized that social conflict may, for example, be functional or desirable by contributing to the maintenance of group boundaries, preventing the withdrawal of members from a group, providing for safety-valve institutions, or by establishing and maintaining a balance of power.

When Conflict is Viewed as Dysfunctional

George Lundberg (1939) represents those sociologists who see in social conflict only negative connotations, disruptive phenomena, and pathological effects. Far from viewing conflict as a necessary or positive part of social relationships, Lundberg considered social conflict a disease to be avoided. Lundberg's conclusions were arrived

at as follows: Interaction among human beings is fundamental in societal behavior and such interaction is unique because it takes place by means of communication through symbolic behavior. Communication means interaction by means of verbal, gestural, pictorial, or plastic symbols, and communication is then a subcategory or form of interaction regarded as the means by which sociation takes place. Hence, the word communication is adopted to designate the basic process of sociation or societal behavior, said Lundberg. Next, with reference to the physical sciences, human behavior is classified in terms of attraction and repulsion usually called approach and avoidance or association and dissociation. Various possible gradations and designations within the general processes of association and dissociation may then be referred to as cooperation, competition, and conflict which are not only to be defined in terms of degrees of communication but also in terms of tension. It follows that conflict would involve high tension, dissociation, and other malfunctioning effects (Lundberg, 1939:275).

Theories such as the Lundberg theory reflect the "nonrationalistic" or "tensions" concept of conflict with emphasis upon negative aspects such as a loss of group unity or the disintegration of social structures. Within the context of such theories conflict would retard or hinder "progress." In the introductory pages of his book, The Functions of Social Conflict, Coser (1956) singled out Talcott Parsons, George Lundberg (referred to above), Elton Mayo, Lloyd Warner, and Kurt Lewin as sociologists who view conflict in terms of a dissociating, corroding, disruptive, or dysfunctional phenomenon.

III. LEADERSHIP STYLE

Leadership.

H.D. Hemphill (1968) described leadership as a process of facilitating the solution of group problems. The process of group problem-solving was viewed as being concerned with both goal accomplishment and group maintenance and, consequently, the control or coordination of the behavior of group members. With reference to inherent organizational requirements and to the potentially diffuse behaviors of individual members, Hemphill (p. 6) reached the following conclusion:

> This control or coordination is a result of one or more of the members of the group affecting the behavior of one or more of the other members. In these terms then, the leadership process involves the set of interpersonal relationships among group members which affects their behavior. Thus, the concept of leadership is really a composite of power, authority and influence phenomena.

A.S. Tannenbaum (1968) also developed the argument that by definition an inevitable correlate of organization is some form of control. Stated Tannenbaum (p. 5), "Control has been variously defined, and different terms (for example, power, authority, influence) are sometimes used synonymously with it. . . . It is now commonly used in a broader sense synonymously with the notions of influence and power."

F.E. Fiedler (1967:8), while recognizing the fact that leadership functions are frequently shared among group members, defined the leader as "the individual in the group given the task of directing and coordinating task-relevant group activities or who, in

the absence of a designated leader, carries the primary responsibility for performing these functions in the group." Fiedler, too, referred to the concepts of influence, power, and control in the development of his leadership theory. For example, Fiedler (1972:454) stated, "Leadership is essentially a relationship involving power and influence. It is, therefore, reasonable to classify situations in terms of how much power and influence the situation gives the leader."

Leadership Style

T.R. McKague (1968) writing under the title "Leadership in Schools," referred to two research programs pertaining to the investigation of leader behavior both of which have emerged within the last two decades. These two programs are commonly referred to as the Ohio studies, which produced the Leadership Behavior Description Questionnaire (LBDQ), and the Fiedler research which produced the Least Preferred Coworker (LPC) instrument.

It is of interest to this study to note the different approaches to the concept of leadership taken in the Ohio studies and the Fiedler research. A.W. Halpin (1956:10-15) preferred to think in terms of leader behavior rather than leadership. Because he wished to avoid using the word in such a way as to imply the existence of some unidimensional attribute, capacity, or power, he preferred to deal with leadership acts or the behavior of leaders and their group members. Halpin stated that the LBDQ measures the leader's behavior in a specified situation and "does not purport to measure an intrinsic capacity for leadership." Halpin argued that the distinction between

"leader behavior" and "leadership" is more than merely academic for the term chosen must be based upon important presuppositions regarding inherent capacities and a variety of situations. It is important to note that Halpin was not suggesting that leader behavior is determined exclusively by situational factors which "is to deny freedom of choice and determination to the leader." Instead, attention was focused upon behavior rather than capacity:

> . . . , consider the concept of "leader behavior" and what it implies. First of all, it focuses upon observed behavior rather than upon a posited capacity inferred from this behavior. No presuppositions are made about a one-to-one relationship between leader behavior and an underlying capacity or potentiality presumably determinative of this behavior. By the same token, no a priori assumptions are made that the leader behavior which a leader exhibits in one group situation will be manifested in other group situations. It may be; but the answer to this question is left open for empirical verification rather than incorporated as an implicit assumption into the very terminology we use to define our problem. Nor does the term "leader behavior" suggest that this behavior is determined either innately or situationally. Either determinant is possible, as is any combination of the two but the concept of leader behavior does not itself predispose us to accept one in opposition to the other. (Halpin, 1956:I2)

Halpin (1956) observed that the emphasis upon situational leadership which characterized research preceding 1956 arose as a protest against the earlier trait approach and in some instances was carried to excess. With reference to the need for a new appraisal of the trait approach and a fresh perspective, Halpin stated, "In the next decade research workers may be less avid in seizing upon convenient phenotypic data as pertinent variables, and more willing to explore the relevance of genotypic variables that are not so readily discernible as 'givens.'" Instead of examining essentially peripheral traits and attribues as we have in the past, said Halpin,

it may be possible eventually "to define a few variables of a genotypic order that will prove predictive of leader behavior in a variety of situations." Just such an approach to "leadership" was inherent in the research of F.E. Fiedler:

> It is important, first of all, that we clearly distinguish between leadership style and leadership behavior. By leadership behavior we generally mean the particular acts in which a leader engages in the course of directing and coordinating the work of his group members. This may involve such acts as structuring the work relations, praising or criticizing group members, and showing consideration for their welfare and feelings. Leadership style will be defined here as the underlying need structure of the individual which motivates his behavior in various leadership situations. Leadership style thus refers to the consistency of goals or needs over different situations. (Fiedler, 1967:36)

With reference to the great profusion of leadership definitions and operational measures in the area of leadership, Fiedler (1967:37) concluded that most leadership research had pointed to two or three main modes of interpersonal behavior by which leaders attempt to exert influence and control. Consequently, the Fiedler research program on leadership was built around a relatively simple method for measuring interpersonal perceptions and dealt with two corresponding styles of leadership which Fiedler (p. 37) defined in a general way as follows: "In grossly oversimplified terms, the leader can take primary responsibility for the group, he can be autocratic, controlling, managing, directive, and task-oriented in his interactions with his members. Alternatively, he can share decision making and leadership with his group: he can be democratic, permissive, nondirective, considerate of his group members' feelings, and therapeutic in his leadership."

The Fiedler approach to leadership style involved asking an individual to describe the person in his working life with whom he

has been able to cooperate least well, that is, his least-preferred coworker.

The development of the LPC measure took place over a period of several years and began with Fiedler's interest in the interpersonal relations and interactions between psychotherapists and their patients. The finding that the more competent and reputedly good therapists tended to describe their patients as more similar to themselves resulted in the Fiedler hypothesis that the attitude of a person toward his coworkers was influential in determining the type of behavior he tended to engage in. The LPC instrument measures a leader's esteem for the person considered to be his least preferred coworker in terms of ratings on certain personality attributes. Scores on the LPC scale indicate whether a leader holds his least preferred coworker in high or low esteem. High LPC leaders see even a poor coworker in favorable terms but low LPC leaders perceive their least preferred coworker in an unfavorable and rejecting manner.

An analysis of behavior manifested by high and low LPC leaders revealed significant differences in leadership styles. Fiedler (1967: 45-60) referred to the findings of numerous LPC studies indicating that high LPC leaders tend to be more concerned with establishing good interpersonal relations and tend to be more considerate than low LPC leaders who tend to be more concerned with the task to be performed and tend to be more goal-oriented and punitive. However, the personality attributes reflected by LPC scores were not visualized as correlates of particular leadership behaviors. The high-LPC individual was visualized as a person who derives his major satis-

faction from successful interpersonal relationships while the low-LPC person was seen as deriving his major satisfaction from task performance:

> Thus, high-LPC leaders are concerned with having good interpersonal relations and with gaining prominence and self esteem through these interpersonal relations. Low-LPC leaders are concerned with achieving success on assigned tasks, even at the risk of having poor interpersonal relations with fellow workers. . . . Both types of leaders may thus be concerned with the task and both will use interpersonal relationships, although the high-LPC leader will concern himself with the task in order to have successful interpersonal relations, while the low LPC leader will concern himself with the interpersonal relations in order to achieve task success. (Fiedler, 1967:45-46)

LPC research found that the behaviors of high- and low-LPC leaders were quite different when a situation threatened the satisfaction of their respective needs. Fiedler (1967:55) stated, "When the individual's quest for need satisfaction is threatened--as indicated by situations in which he feels uncomfortable, anxious, or tense--the high- and the low-LPC persons concentrate on different goals." The high-LPC leader attempted to increase his interpersonal interaction in order to cement relations with other group members while the low-LPC leader interacted in order to complete the task successfully. Consequently, Fiedler (1967:59-60), with reference to recent LPC studies, made the inference that LPC scores reflect an individual's motivational structure: "Taken as a whole, these scores appear to be motivational measures." In an article which summarizes recent studies involving the use of LPC measures, Fiedler (1972:453-456) referred to the motivational system of the leader as measured by the Least Preferred Coworker scale. Again he pointed out that leadership motivation, as measured by the LPC score, and leadership behavior

are not directly related and that high LPC leaders are relationship-motivated while low LPC leaders are task-motivated:

> The LPC is interpreted as an index of a goal hierarchy (Fiedler, 1971b, 1972). High LPC persons, that is, individuals who describe their least preferred coworker in positive terms, are seen as primarily motivated to relate to others. . . .
> Low LPC persons, that is those who describe their least preferred coworker in very unfavorable terms, are basically motivated by task accomplishment.

IV. METHODS OF MANAGING CONFLICT

Writing in the preface to a special issue of The Journal of Conflict Resolution, Boulding (1968:410) reminisced that perhaps the publication title should have incorporated the word "management" rather than "resolution", that the distinction between constructive and destructive conflict is not the same as the distinction between those resolved and those not resolved and that sometimes there is a need for protracting conflict and keeping it unresolved. Boulding concluded that the more neutral word, management, defined as "diminishing the costs and increasing the benefits of a process" might better describe the journal's objectives. The implications for administrative action are that when social conflict is viewed as dysfunctional, administrators attempt to avoid it, reduce it, eliminate it, or simply coexist with it. However, the view that social conflict can often be functional precipitates a search for ways of distinguishing between functional and dysfunctional conflict and for techniques and strategies which have more to do with the management of conflict rather than the immediate termination of conflict.

To produce an exhaustive taxonomy of detailed techniques for

the management of conflict in public education would be a gigantic and perhaps impossible task. However, several writers and researches have formulated basic, general methods of conflict management. Boulding (1962:308-10) referred to three general methods: (1) avoidance through lack of contact, (2) conquest with the emergence of victors and vanquished, and (3) procedural resolution through reconciliation involving value changes, bargaining where each side settles for less, and third party awards. Follett (1940:30-32) also saw social conflict as being handled by three main approaches: (1) domination involving a victory of one side over the other, (2) compromise which forces each side to lose and is only concerned with what already exists, and (3) creative integration where something new accommodates the interests of all opponents. Blake and Mouton (1964) identified five possible modes of conflict management which were described in Chapter I under "Definition of Terms" and were referred to as the Forcing method, Withdrawing method, Compromising method, Smoothing method, and Confrontation method.

Using the five methods of managing conflict identified by Blake and Mouton, Lawrence and Lorsch (1967) examined the use of Confrontation, Smoothing, and Forcing in comparing productivity among six organizations. The Lawrence and Lorsch instrument consisted of 25 aphorisms or proverbs to describe the five methods of conflict management; five proverbs were used to match each of the five methods outlined by Blake and Mouton. In another empirical investigation pertaining to constructive conflict and methods of resolving superior-subordinate differences, Burke (1970) utilized the Blake-Mouton

methods of conflict management and the Lawrence-Lorsch instrument to study middle-level management in an engineering department of a large corporation with divisions located throughout the United States. Blake attempted to relate the five methods of conflict management to two dependent variables: (1) constructive use of differences and disagreements, and (2) aspects of the superior-subordinate relationship in planning job targets and evaluating accomplishments.

The theory and research referred to above appear to indicate that the five general but different methods of managing conflict outlined by Blake and Mouton do exist in the organizational world.

V. SUMMARY AND SYNTHESIS

In this chapter theory and research were referred to in an attempt to provide a theoretical basis for the study. The literature suggested that organizational leaders or managers of varying leadership styles and attitudes toward conflict are likely to employ different methods for the management of conflict. Consequently, while Section I provided theoretical support for the contention that conflict between teachers in schools does exist, Section II was concerned with how the attitudes of organizational leaders toward conflict may influence their behavior in managing conflict.

The concepts of leadership and leadership style were presented in Section III in an attempt to show how an individual's general style of leadership or management might also influence the methods chosen for managing conflict. Finally, Section IV presented pertinent theory and research regarding the existence of various possible

methods of conflict management which might be used in the organizational world.

Although most of the literature referred to in this chapter was not specifically concerned with public school principals, the literature appeared to support the following proposition: principals of varying leadership styles and attitudes toward conflict are likely to employ different methods for the management of conflict between teachers.

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CHAPTER III

INSTRUMENTATION AND METHODOLOGY

This chapter provides descriptions of the instruments used in the study and of the methods used to collect data. Section I is concerned with a measure of leadership style while Section II deals with the procedures used to develop an instrument for measuring the attitudes of principals toward conflict. The procedures used to develop an instrument for measuring the principals' methods of conflict management are presented in Section III and the validity and reliability of the two instruments developed are discussed in Section IV.

Section V deals with the collection of demographic information while the last section of the chapter presents a description of the methods employed to collect the data for this study.

I. LEAST PREFERRED COWORKER (LPC)

The LPC instrument, which appears to measure basic psychological attributes, was thought to be more appropriate for this study than the Leadership Behavior Description Questionnaire (LBDQ). Because an LPC measure of leadership style is based upon the perceptions of the leader himself and appears to be related to the leader's underlying needs or motivational structure, it appeared reasonable to speculate that there might be some relationship between principals' LPC scores and their attitudes toward conflict.

Fiedler's least preferred coworker rating scale was the instrument used to measure the attitude of the principal toward his least preferred coworker. The person about whom the principal was asked to think and then to describe was to be the person with whom the principal would have the most difficulty getting a job done. The descriptions were made on 16 bi-polar adjective check lists, similar to Osgood's Semantic Differential, and appear to pertain to personality attributes. The first and third items of the LPC instrument serve as illustrations of the eight-point scales used in conjunction with bi-polar adjectives and are as follows:

Pleasant --8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--Unpleasant

Rejecting --1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--Accepting

Respondents were asked to circle the most appropriate score (from 1 to 8) for each of the 16 sub-scales.

Scores on this instrument can range from 16 to 128 and indicate the extent to which the principal evaluated the least preferred coworker in a relatively favorable or unfavorable manner. The complete instrument in the form presented to principals in this study is contained in the PART I - PRINCIPALS questionnaire in Appendix A.

The Interpretation, Validity, and Reliability of LPC

Fiedler (1967:44-60) found it "extremely difficult to develop an adequate and readily supportable interpretation" of LPC scores. Because there were no one-to-one relationships between LPC scores and leadership behavior and few significant correlations with the usual personality and ability tests or attitude scales, LPC scores

appeared to measure psychological attributes which were unrelated and presumably different from other psychological traits and attributes. Fiedler (pp. 46-47) stated that the LPC score involves little accuracy of perception but instead is an emotional reaction to people with whom one cannot work:

> On first glance it may appear that we are dealing with a measure of perceptual accuracy or the ability to differentiate good and poor coworkers. This is not so, however. There is no logical reason why someone with whom we cannot work should have only negative personality attributes. . . . The low LPC person thus seems to overreact to those with whom he finds it difficult to work.

With reference to an elaborate study conducted by A.R. Bass et al. (1964) involving eighty-one measures administered to 163 male college students, Fiedler (p. 49) stated that a factor analysis of all measures over all subjects showed that LPC scores were factorially unique and that, just as in previous studies, LPC scores seemed to measure psychological attributes which were unrelated and presumably different from other psychological traits and attributes represented in the test battery. However, because it was considered possible that the personality structure of high and of low LPC persons might differ, the total sample of 163 subjects was split and test responses of the two subsamples refactored using varimax rotation. Factors were found to be unique to each group which suggested major differences in factor structure between the high and the low LPC samples: "The results indicate that interpersonal and interaction orientation are highly relevant dimensions for high-LPC persons. Task leadership and task orientation appear more important for the low-LPC individual."

Fiedler (1967:53-59 , 184-196) described a number of investi-

gations devoted to the identification of behaviors which would differentiate high and low LPC leaders. Empirical evidence was presented to support his interpretation of LPC scores, i.e., that LPC represents an index of an individual's motivational system or of a goal hierarchy. Fiedler found his most important clues to the interpretation of LPC scores in studies concerned with the more systematically difficult situations for the leader. When "an individual's quest for need satisfaction" was threatened by controlled situations in which he felt uncomfortable, anxious, or tense, different kinds of behavior were triggered in persons with high than with low LPC scores. In socially strained situations, the low LPC leader manifested a high rate of task-relevant behavior by giving more suggestions and directions, asking for information and orientation, as well as asking for suggestions and direction in a task-related manner. In contrast, the high LPC leader in socially strained situations, manifested a high rate of relationship-oriented and task-irrelevant comments on an emotional and personal level of interaction. Where basic needs were satisfied by favorable, non-threatening situations more energy was devoted to secondary goals according to Fiedler's interpretation. Thus, "High-LPC leaders made fewer relationship-oriented comments than low-LPC leaders in group situations which they considered relatively free of stress and relatively pleasant. . . . , the low LPC leaders made relatively fewer task-oriented comments than high-LPC leaders in the relatively relaxed group situations." (Fiedler, 1967:190-91)

The Fiedler interpretation of what high and low LPC scores

represent has been challenged. Fiedler, himself, (1967:51-52) referred to the work of Fishbein et al. (1965) to make the following observation: "Fishbein interprets the previous lack of correlations between LPC and personality test responses as indicating that LPC is an attitude measure which is fairly specific to the team situation, and which, therefore cannot correlate highly with personality-trait measures."

Fiedler (1971:129) admitted that, "While labels of relationship-oriented versus task-oriented have been given to high versus low LPC persons, the terms are somewhat misleading." He stated the following two reasons as an explanation for the confusion:

> First, only in situations which are unfavorable (that is, stressful, anxiety arousing, giving the leader little control) do we find leader behaviors which correspond to these terms (Fiedler, 1967a). Second, Mitchell (1970) has found evidence that high LPC leaders tend to be cognitively more complex in their thinking about groups, while low LPC leaders tend to give more stereotyped cognitively simple responses. Similar results (i.e., a correlation of .35) have been reported by Schroder and his co-workers (H. Schroder, personal communications, 1969).

The following conclusion was Fiedler's (1971:129): "Thus, the LPC score must be seen as a measure which at least in part reflects the cognitive complexity of the individual and which in part reflects the motivational system that evokes relationship-oriented and task-oriented behaviors from high versus low LPC persons in situations which are unfavorable for them as leaders."

Even though there appears to be some uncertainty as to exactly what an LPC score represents, it is helpful to remember that Fiedler's research program began with discoveries about human interaction unrelated to leadership style. With reference to relationships

between psychotherapists and their patients it was observed that reputedly successful therapists perceived their patients to be more like themselves than did reputedly poor therapists. That observation suggested to Fiedler (1964:153) that, "The individual who perceives another person as similar tends to feel psychologically close, accepting, and permissive toward him." From this proposition Fiedler's research program produced the LPC instrument and the concepts of relationship-motivated high LPC leaders and task-motivated low LPC leaders.

V.D. McNamara, who investigated the performance of elementary and secondary school principals in Alberta, supported the validity of the LPC instrument with the following conclusion: "In brief, then, the evidence indicates that both in general leadership situations and among school principals, low LPC scores are related to task-oriented and directive leader behavior, while high LPC scores are related to permissive leader behavior." (McNamara, 1968:57) T.R. McKague (1970), with reference to the two McNamara studies noted above and in two additional studies carried out in Saskatchewan, used data derived from over 500 schools in an attempt "to determine whether differences could be found in the behavior of high and low LPC principals." McKague concluded that the behaviors of principals who score similarly on the LPC scale follow a consistent pattern and that LPC scores are meaningful in differentiating the leader behavior of school principals. "Results of the studies reported indicate that principals who score high or low on the LPC scale do possess distinctive behavioral characteristics. The behavior of low LPC principals, whether elemen-

tary or secondary, was found to be more readily determined than that of high LPC principals." (McKague, 1970:9)

Fiedler found the LPC instrument to have high internal consistency with split-half correlations ranging from .85 to .95. He found that although a number of different items dealing with personality attributes (stable-unstable, friendly-unfriendly) were used, the content of the scale items played a very minor part in determining LPC scores. With reference to the stability of LPC scores over time, Fiedler found that stability depended to a considerable extent on intervening experience. For example, the test-retest correlation for mature airforce officers in a training situation was .68 while for other military groups correlations were as low as .31 (Fiedler, 1967: 46-49).

II. ATTITUDES TOWARD CONFLICT

For purposes of this study it was necessary to collect data regarding each principal's general attitude towards the desirability or undesirability of conflict between teachers. The literature suggested that an administrator who tends to have a favorable attitude toward conflict may use different methods of conflict management than an administrator who tends to have an unfavorable attitude toward conflict. Because an Attitude Toward Conflict (ATC) measure was not available, it was necessary to develop an ATC instrument.

Development of the ATC Instrument

An ATC instrument for measuring the attitude of principals

toward conflict between teachers was developed with the aid of a pilot study involving 27 M.Ed. students enrolled in Educational Administration at the University of Alberta. On the basis of the literature, 16 questionnaire items were constructed each of which was thought to be relevant to an investigation of principals' attitudes toward conflict. All 16 items were constructed as positive statements with the assumption being made that the odd-numbered items described conflict in favorable terms and the even-numbered items described conflict in unfavorable terms (Payne, 1951). Consequently, it was assumed that the effect of "yeasayer" and "naysayer" response sets would be balanced out (Couch and Keniston, 1960).

The 27 M.Ed. subjects were given the instrument during one of their seminars in a research and statistics class and asked to perform the following tasks: (1) to respond to the questionnaire as principals or educational administrators, (2) to rate each item on an eight-point scale in terms of its clarity, and (3) to suggest how the item might be improved. Before the questionnaire handout was given to the M.Ed. students, the purpose of the study and the tasks to be performed by questionnaire respondents were explained to them by the researcher. In Section I of the questionnaire, the pilot study subjects were requested to respond to the questionnaire as principals or administrators by indicating whether a consequence or outcome of conflict between teachers is likely to result (A) Very Frequently, (B) Often, (C) Occasionally, (D) Seldom, or (E) Very Rarely. Item number 1 is representative of the 16 items contained in Section I and was presented as follows:

1. Conflict between teachers adds constructive zest to organizational activities . . . . . A B C D E

In Section II of the questionnaire, respondents were asked to work through the 16 items a second time and to rate each item on an eight-point scale in terms of its clarity. Space was provided below each item within which the respondents were also requested to make any suggestions which might be utilized by the researcher for improving that item's clarity. Item number 5, which after being modified because of suggestions received became item number 4 in the final form of the ATC instrument, is representative of the manner in which the 16 questionnaire items were presented to the pilot study subjects and was included in Section II of the questionnaire as follows:

5. Conflict between teachers acts as a safety-valve mechanism preventing the emergence of more serious blowups.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

The complete handout, as it was presented to the M.Ed. students, is contained in Appendix B.

The Pilot Study Findings

Table 1 reveals the distribution of subject responses to the 16 items contained in Section I of the questionnaire. Ten of the items were responded to in terms of all five possible response categories which ranged from very frequently to very rarely. M.Ed. subjects utilized four of the five possible response categories in the remaining six items.

Individual ATC scores are contained in Table 2. Item responses

Table 1

Distribution of Subject Responses to 16 items in Section I of the ATC Questionnaire used in the Pilot Study

(N = 27)

	(Very Frequently)	(Often)	(Occasionally)	(Seldom)	(Very Rarely)
1	0	8	14	3	2
2	1	11	10	5	0
3	3	6	7	8	3
4	4	6	6	9	2
5	1	6	9	6	5
6	3	9	12	3	0
7	3	13	8	2	0
8	0	7	7	10	3
9	5	10	5	6	1
10	1	3	7	11	5
11	3	7	12	3	2
12	3	13	5	5	1
13	2	4	13	3	5
14	0	9	5	10	3
15	1	6	11	6	3
16	1	8	9	8	1

Table 2

Individual Scores and Group Mean
Emerging from ATC Pilot Study

(N = 27)

25	43	50	54	60
28	43	50	54	61
38	44	51	54	63
41	44	53	55	
42	45	53	57	
43	47	53	58	
mean 48.48				

in Section I were quantified by using weights of one to five. The odd-numbered items were scored five for Very Frequently through four, three, two, to one for Very Rarely, while the even-numbered items were scored one for Very Frequently through two, three, four, to five for Very Rarely.

It was assumed that a relatively low score indicated an attitude which tended to regard conflict as dysfunctional while a relatively high score reflected an attitude which tended to regard conflict as functional. However, it was recognized that obtaining a rank order score does not distinguish between a favorable and an unfavorable attitude. These scores merely enabled the researcher to analyze responses in terms of less favorable and more favorable attitudes toward conflict (Guttman, 1946:262). The possible range of scores for completed questionnaires was from 16 to 80; the actual range was from 25 to 63. Three of the respondents scored above 59, twelve from 50

to 59, nine from 40 to 49, and three respondents scored below 40. The mean ATC score for the 27 M.Ed. subjects was 48.48.

In Table 17 contained in Appendix B, the clarity ratings for each of the 16 items are reported. One respondent failed to rate any items in terms of clarity even though he had responded to all 16 items in Section I of the questionnaire. Totals for the eight-point-scale ratings are also presented in Table 17, Appendix B, and show that item number four received the lowest rating which was 155 while item number seven received the highest rating which was 198. With 26 respondents completing Section II of the questionnaire, the highest possible rating for each item was 208.

The results of the pilot study with the 27 M.Ed. subjects were factor analyzed by use of a varimax rotation procedure. This rotation was selected in an effort to develop both "clean" factors and meaningful dimensions. Five, four, three, and two-factor solutions were attempted.

The five-factor solution accounted for 72 percent of the total variance, however the fifth factor contained only two items with factor loadings above .40 and one of the two items had a higher factor loading on the second factor.

The four-factor solution accounted for 65 percent of the total variance but the third factor appeared to reflect negative aspects of conflict while positive and negative aspects were mixed together in factors one and four. Factor two retained all but one of the same items which it had contained in the five-factor solution.

The three-factor solution accounted for 57 percent of the total

variance but eight of the 16 items had significant loadings on factor one, six loaded on factor two, and seven loaded on factor three. While the third factor contained those items which had significant loadings on the second factor in the five-factor and four-factor solutions, the first and second factors appeared to reflect similar concepts or attributes.

Finally, the two-factor solution, which is presented in Table 3, accounted for 45 percent of the variance with items 1, 5, 9, 11, 12, and 13 emerging with Factor II loadings as they had previously in the five, four, and three-factor solution attempts. Factor I included items 2, 4, 6, 7, 8, 10, 14, 15, and 16. Factor I appeared to reflect something which might be termed an institutional or organizational dimension while Factor II appeared to measure what might be termed an individual or personal dimension.

The Revised ATC Instrument

In terms of what was manageable and comprehensible, the two-factor solution appeared to serve the basic purpose or intent of the ATC instrument. The function of the instrument was to measure the general attitude of principals toward conflict between teachers. However, factor analysis of the pilot study data revealed the possibility of at least two separate dimensions of attitude toward conflict. Consequently, those two factors, as measured by their respective questionnaire items and identified in Table 3, were treated in the study of principals as separate and independent variables.

Because item 3 in the pilot study questionnaire received a

Table 3

Factor Loadings for the ATC Instrument
Emerging from Varimax Rotation
and a Two-Factor Solution

(N = 27)

Items	Communalities	Factor 1	Factor 2
1	0.486	0.456	0.528
2	0.497	0.617	0.340
3	0.218	0.292	0.364
4	0.321	0.536	0.183
5	0.360	0.253	0.544
6	0.395	0.601	0.184
7	0.292	0.538	0.048
8	0.518	0.719	0.026
9	0.558	- 0.065	0.744
10	0.478	0.644	- 0.252
11	0.562	0.125	0.739
12	0.532	- 0.089	0.724
13	0.478	0.242	0.647
14	0.690	0.762	0.331
15	0.520	0.559	0.455
16	0.330	0.568	0.088
	7.235	3.910	3.324
Percent of Common Variance			
	100.000	54.052	45.948
Percent of Total Variance			
	45.216	24.440	20.776

relatively low rating in terms of clarity and failed to attain a factor loading above .40 in the two-factor solution, it was dropped entirely in constructing the revised ATC instrument. When any one of the remaining 15 items received a relatively low rating in terms of clarity and where respondents made suggestions for improving that item's clarity which did not appear to change the basic context and direction of the item, it was then modified in an attempt to avoid any ambiguous or obscure meanings.

On the basis of the factor analysis, the rating of the items in terms of clarity, suggestions for improving an item's clarity, and the necessity of modifying items in the two independent ATC measures to balance out "yeasayer" and "naysayer" effects, the ATC instrument was revised. In the study of Conflict Management in Schools, the revised ATC instrument was used to measure the attitude of principals toward conflict and is contained in SECTION 3 of the PART I - PRINCIPALS questionnaire in Appendix A. Items 1, 4, 8, 10, 11, and 12 pertain to the "individual" ATC dimension and items 2, 3, 5, 6, 7, 9, 13, 14, and 15 pertain to the "organizational" ATC dimension. Scoring keys for each item in the individual ATC dimension and for each item in the organizational ATC dimension are presented in Appendix A.

III. METHODS OF MANAGING CONFLICT

Using the five methods of managing conflict identified by Blake and Mouton (1964), Lawrence and Lorsch (1967) developed an

instrument for measuring conflict management. Lawrence and Lorsch used 25 aphorisms or proverbs to describe the five methods of conflict management outlined by Blake and Mouton on the *a priori* assumption that the five modes of managing conflict did exist in the organizational world. "Aphorisms were used, because they represent folk wisdom about useful methods of handling conflict and because they avoided the use of biased phraseology and social science jargon." (Lawrence and Lorsch, 1967b:42)

The Lawrence and Lorsch research data were factor analyzed by use of an orthogonal rotation in an attempt to identify factors and establish factor loadings for the aphorisms. Only three interpretable factors were found and these were identified as the Forcing, Smoothing, and Confrontation modes of conflict management. Nevertheless, Burke (1970) utilized the Lawrence and Lorsch instrument in several studies to obtain various data regarding all five methods of conflict management.

Development of the MOM Instrument

The Lawrence and Lorsch instrument, which uses proverbs to describe the five general methods of managing conflict outlined by Blake and Mouton, was not used in this study. However, in light of the general literature, the Blake and Mouton work, the Lawrence and Lorsch instrument, and the empirical studies described by R.J. Burke (1970), an assumption of the present study was that there are five general but different methods for managing conflict between teachers.

Rather than abandon entirely the possibility of using proverbs

for this measure, it was decided to construct a number of questionnaire items to describe each of the five methods and then to combine the constructed items with a number of the Lawrence-Lorsch proverbs to constitute a single instrument. On the basis of the Lawrence and Lorsch (1967:265) factor analysis, which identified three factors describing the Forcing, Smoothing, and Confrontation methods, and on the basis of face validity, 15 proverbs were selected from the Lawrence and Lorsch instrument. The 15 proverbs were then combined with 21 questionnaire items each of which was thought to reflect one of the five methods of conflict management.

A class of 14 doctoral students in Educational Administration at the University of Alberta were given the instrument for a period of two days and asked to judge each of the questionnaire items in terms of which method of managing conflict the item was indicative of or best reflected. The purpose of the study and the functions of the panel of judges were explained to the class seminar by the researcher with provision being made for questions and discussion by the student-judges. Judges were asked to indicate in a space provided after each item whether the item was indicative of or best reflected the method of conflict management described as (A) Forcing, (B) Withdrawing, (C) Compromising, (D) Smoothing or (E) Confrontation. If in the judge's opinion the item reflected more than one of the five methods of conflict management, he was asked to indicate his second and (if necessary) his third choice of which MOM the item appeared to describe. The judges were also asked to rate each item on an eight-point scale in terms of its clarity and to indicate how the item might be improved

if it were ambiguous or obscure. The materials handed out to the judges included concise descriptions of each of the five methods of conflict management and specific directions regarding the tasks to be performed. Item number 7 presented below is representative of the 36 items which were included within the MOM instrument when given to the panel of judges.

7. My principal handles conflict between teachers by trying to coax or humor people out of it . . . . . ____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

The complete handout, as it was presented to the judges, is contained in Appendix B.

The Revised MOM Instrument

An analysis of the ten questionnaires returned by the panel of judges resulted in the application of two criteria for determining which items to retain and which to drop: (1) The item had to average at least six out of eight in terms of clarity on the eight-point scale (see Table 18, Appendix B). (2) The item had to receive at least 80 percent (8 out of 10) first-choice agreement in terms of what method of management it refelcted (see Table 19, Appendix B).

Two exceptions to these criteria were made. Item number 20, which is a proverb, received 100 percent agreement regarding what method it reflected but averaged 5.8 in terms of clarity. Item number 36, which is also a proverb, received 90 percent agreement (with one judge abstaining) regarding what method it reflected but averaged 5.9 in terms of clarity. The Lawrence and Lorsch factor

analysis revealed factor loadings for these two proverbs of .42 and .50 respectively. On the basis of the three considerations above, it was decided to retain items 20 and 36 which resulted in dropping 13 items from the questionnaire and retaining 23 among which two proverb-items refer to Compromising, one to Withdrawing, two to Forcing, two to Smoothing, and two to Confrontation.

Because an attempt was made to avoid any cueing or prompting when the judges were asked to associate the 36 items with the descriptions of the five methods, 5 items (which are inherent in the five descriptions and involve the use of "key" words) were not presented to the judges. These 5 items which were then added to the 23 previously selected items, were as follows:

1. My principal handles conflict between teachers by using authority, penalties, or sanctions to settle it as quickly as possible.

2. My principal handles conflict between teachers by steering clear of or retreating from all situations of conflict whenever possible.

3. My principal handles conflict between teachers by an automatic attempt to find a course down the middle that splits the difference.

4. My principal handles conflict between teachers by actively promoting harmonious relationships.

5. My principal handles conflict between teachers by use of an open problem solving approach which both allows and encourages those involved in the conflict to work through their differences or disagreements.

In The Study of Conflict Management in Schools, teachers were asked to describe their principal's methods of managing conflict by responding to the 28-item PART II - TEACHERS questionnaire as it is

contained in Appendix A. The method of Compromising was reflected by five items (2, 7, 12, 17, 25), Withdrawing by six items (3, 8, 13, 18, 22, 26), Forcing by five items (4, 9, 14, 19, 23), Smoothing by six items (5, 10, 15, 20, 24, 27), and Confrontation by six items (1, 6, 11, 16, 21, 28).

IV. THE VALIDITY AND RELIABILITY OF THE ATC AND MOM INSTRUMENTS

Several major problems pertaining to validity and reliability attended the development of instrumentation for collecting and quantifying descriptive ATC and MOM data. One of the first problems was to conceptualize the universe of content to be studied. In this context Louis Guttman (1944) defined the term, universe, as a large class of behavior or a concept to be investigated. He stated that the universe of content to be studied is defined by the content of questions to be asked.

Because the universe of content, as it pertained to conflict between teachers, consisted of all possible questions which could be asked, an indefinitely large number of questions belonged in the universe. However, because of human limitations in terms of capacity, time, and other resources, it was expedient to use only a sample of the universe of possible questions. Consequently, items for the ATC and MOM instruments were not randomly selected from an exhaustive item-pool, but were "psychologically" developed and refined. In referring to his work regarding the measurement of attitudes, Guttman (1944:141) made the following observation: "However, we have found

it most useful at present to utilize informal experience and consensus to the fullest extent in defining the universe." On the basis of the literature, the ratings and critiques of pilot-study subjects and a panel of judges, and the researcher's own experience, questions were constructed, modified, and dropped entirely in an attempt to achieve face and content validity. No measures or criteria of sufficient relevance, reliability, and validity appeared to exist which could be used for statistically estimating the validity of the new instruments.

The problem of question "bias" or differing results produced by differing questions was also recognized. In this regard Guttman and Suchman (1947:58) pointed out that, "the wording of questions, the order of presentation of questions, the wording of the check list of answers, or the use of free responses in answers, and a whole host of related things, can change the apparent opinion of the respondent." In an attempt to obtain precise and accurate data, an effort was made to use clear and unambiguous wording in item construction. The questionnaires were relatively short so that respondent fatigue or boredom would be minimized. The anonymity of principals and teachers was carefully provided for in an attempt to encourage participation in the study as well as the accurate reporting of information. One consequence of this anonymity was that test-retest procedures for estimating reliability could not be used. However, there is some question whether such a procedure should be used with the ATC instrument as attitudes may change over periods of time.

By delimiting the area of study to conflict between teachers, rather than including conflict between the teachers and the principal,

and thus allowing the principals to be one step removed from what they were judging or describing, an effort was made to obtain objective and "bias-free" responses from both principals and teachers. It was also thought that because of differing role expectations, some principals might regard conflict between themselves and their teachers in a different way, and manage it in a different way, than when the conflict was between teachers. Such confounding might have confused the relationships this study attempted to focus upon.

Specific Aspects of Validity and Reliability Pertaining to The ATC Instrument

Benoit (1967) found that most research workers in the field of attitude analysis use a set of questions to measure the attitudes of people with regard to complex subjects. While one or two questions may not pertain to all important aspects of the attitude held, a set of questions is more likely to tap a particular dimension of attitude in greater detail and, consequently, increase the validity of the instrument (Benoit, 1967:38-40).

The ATC instrument consisted of 15 items for measuring two dimensions of attitude. The construction of all items as positive statements with provision for an approximately equal number of "pro-conflict" items and "anti-conflict" items enabled the responses, when quantified, to be balanced out for yeasayer and naysayer effects.

With reference to the assumption that principals possess varying attitudes toward conflict, validation for the ATC instrument was indicated in both the pilot study and the study of principals by the

distributions of scores contained in Tables 1, 2, 10, and 11. Substantial variation was found both in item responses and in total individual scores. In an attempt to determine whether all ATC items were measuring a single attitude or whether different aspects of attitude toward conflict between teachers were being measured, a factor analysis with varimax rotation was performed on the pilot study data. Cooley and Lohnes (1962:151-53) stated that factor analysis may be used to identify fundamental and meaningful dimensions in a multivariate domain and that this "construct-seeking" task is a generally useful procedure for determining the minimum number of independent dimensions needed to account for most of the variance in the original set of variables. Kerlinger (1964) observed that one may write an attitude scale thought to be unidimensional or to measure a single attitude but a factor analysis may reveal that some items should be studied and added separately rather than together with other items which do not measure the same thing.

The results of the factor analysis of ATC data collected during the pilot study have been reported previously in this chapter. The findings emerging from the study of principals revealed a high correlation ($r = .77$), significant at the .01 percent level, between the individual dimension and the organizational dimension in the ATC instrument. Kerlinger (1964:668-69) stated that actual factors are not usually uncorrelated, however, the correlation reported here is a reminder that the two ATC factors emerging in the two-factor solution are hypothetical constructs which because of the danger of reification must be treated cautiously.

Kerlinger (1964) stated that a proven procedure for attaining reliability in questionnaire responses is to provide clear instructions and avoid the use of ambiguous items. By means of the pilot study an attempt was made to realize these two conditions. Odd-even reliability tests for estimating internal consistency in each of the two dimensions of the ATC instrument were performed on the data collected from principals. A reliability coefficient of .55 was established for the individual factor and of .81 for the organizational factor. Fox (1969:362) stated that when reliability drops as low as .60, the data can only be interpreted with the greatest caution until further study is completed.

Specific Aspects of Validity and Reliability Pertaining to the MOM Instrument

Procedures for utilizing a group of judges to relate items to five different methods of managing conflict, to rate items on an eight-point scale in terms of clarity, and to make suggestions for avoiding ambiguous or obscure expressions have been described elsewhere in this chapter.

In an attempt to obtain reliable and valid data regarding the behavior of principals in managing conflict between teachers, a group of teachers was randomly selected in each school and each teacher was asked to rate his or her principal on the 28-item PART II - TEACHERS questionnaire. Teacher responses were then analyzed to yield a mean score for each principal on each of the five methods of managing conflict. It was assumed that a mean score representing the judgment

of five or more teachers was likely to be more objective and accurate than a description of a principal's behavior based on the perceptions of one or two people. Nevertheless, it was thought that some information should be sought regarding the personal and professional characteristics of the people whose perceptions were used to describe principals' methods of managing conflict. Consequently, in the PART II - TEACHERS questionnaire, teachers were asked to answer seven questions presented under the heading, PERSONAL INFORMATION.

Biographic information was obtained concerning the teachers' sex, age, years of post secondary education, years served with present principal, years of experience as a teacher, teaching duties in terms of grade level, and teaching responsibilities in terms of major teaching assignments.

By use of frequency and percentage distributions Table 4 summarizes the biographic information obtained from teachers and indicates that 29.87 percent of the teachers who responded to the question concerning sex were males while the remaining 70.13 percent were females. Table 4 reveals that the largest percentage of teachers, 50.33 percent, were in the age interval of 21 to 29 and 31.89 percent of the teachers had five or more years of post secondary education. An examination of Table 4 shows that 54.12 percent of the teachers had served two years or less with their present principal while 14.14 percent of the teachers had less than three years of experience as a teacher.

In analyzing the grade levels taught by the teachers, the researcher tabulated the highest grade level taught. Table 4

Table 4

Frequency and Percentage Distributions for
Biographic Information (Teachers)

	Score Interval Frequency and Percent of Total Sample						
Teachers' Sex		Sex		Male		Female	
(N = 298)		f		89		209	
		%		29.87		70.13	
Teachers' Ages	Age Interval	under 21	21-29	30-39	40-49	50-59	over 50
(N = 302)	f	1	152	77	28	37	7
	%	.33	50.33	25.50	9.27	12.25	2.32
Teachers' Years of Post Secondary Education	Year Interval	1	2	3	4	5	6 (or more)
(N = 301)	f	1	52	56	96	55	41
	%	.33	17.28	18.60	31.89	18.27	13.62

Table 4 (continued)

		Score Interval Frequency and Percent of Total Sample											
Years Served with Present Principal	Year Interval	1	2	3	4	5	6	7	8	9	10	(11-20)	(over 20)
	f	94	70	52	39	20	11	8	3	3	1	2	0
(N = 303)	%	31.02	23.10	17.16	12.87	6.60	3.63	2.64	.99	.99	.33	.66	0.0
Years of Experience as a Teacher	Year Interval	1	2	3	4	5	6	7	8	9	10	(11-20)	(over 20)
	f	19	24	23	23	24	22	21	20	14	17	63	34
(N = 304)	%	6.25	7.89	7.57	7.57	7.89	7.24	6.91	6.58	4.61	5.59	20.72	11.18
Teachers' Highest Grade Taught	Grade Interval		1	2	3	4	5	6	7	8			
	f		32	27	39	28	27	38	8	99			
(N = 298)	%		10.74	9.06	13.09	9.40	9.06	12.75	2.68	33.22			
Nature of Current Major Teaching Assignments	Classification		Specialist		Generalist								
	f		107		193								
(N = 300)	%		35.67		64.33								

indicates that out of a total of 298 responses, 99 teachers were teaching grade eight students. Responses to question number seven, which dealt with the nature of current teaching assignments, were classified by the researcher in terms of general or specialized teaching duties. For example, a teacher who taught grades seven and eight science only, was classified as a specialist while a teacher who taught all general subjects in grade six was classified as a generalist. The number of teachers classified as specialists was 107 accounting for 35.67 percent of the 300 teachers responding to the question while the number of teachers classified as generalists was 193 or 64.33 percent of the teachers answering the question. It would appear, consequently, that principals' behavior in managing conflict was described by teachers who were most often female, who tended to be relatively young, who had spent relatively few years with their present principal, and who in approximately two out of every three instances were generalists rather than specialists. To examine the possibility that teachers with considerably different biographic characteristics might have had significantly different perceptions of their principal's methods of managing conflict, the total sample of teacher-respondents was divided into two groups for each of the seven biographic variables. MOM mean scores were then calculated for each of the two groups of teachers designated on the basis of each of the seven variables and are contained in Table 5. With reference to teachers' ages, years served with present principal, and years of experience as a teacher, the teachers were divided into high-low groups on the basis of having approximately equal numbers of

Table 5

A Comparison of Teachers' Perceptions
as Reflected by MOM Means

		FOR.	SMO.	COM.	WIT.	CON.
Teachers' Sex	Male (N = 89)	3.17	2.50*	2.16	1.84	2.87
	Female (N = 209)	2.98	2.28*	2.13	1.78	2.70
Teachers' Ages	29 or less (N = 153)	3.01	2.50**	2.27*	1.96**	2.83*
	30 or more (N = 149)	3.03	2.16**	2.01*	1.60**	2.63*
Post Secondary Education (years)	3 or less (N = 109)	2.95	2.39	2.14	1.76	2.75
	4 or more (N = 192)	3.04	2.28	2.16	1.80	2.71
Years Served With Present Principal	2 or less (N = 164)	3.05	2.36	2.11	1.84	2.71
	3 or more (N = 139)	2.92	2.27	2.24	1.72	2.74
Years of Experience as a Teacher	7 or less (N = 156)	3.00	2.47**	2.25	1.89*	2.80
	8 or more (N = 148)	3.01	2.16**	2.04	1.66*	2.64
Grade Levels Taught	4 or lower (N = 126)	2.98	2.37	2.17	1.85	2.77
	5 or higher (N = 172)	3.05	2.29	2.14	1.73	2.72
Nature of Teaching Assignment	Specialists (N = 107)	3.00	2.34	2.13	1.80	2.77
	Generalists (N = 193)	3.07	2.31	2.18	1.75	2.68

* Difference significant at the .05 level for a two-tailed test.

** Difference significant at the .01 level for a two-tailed test.

teachers in each group. With reference to the variable of post secondary education, it was assumed that four or more years of post secondary education would usually refer to a teacher with at least one university degree while three years or less would indicate a non-degree teacher. The division regarding grade levels taught was made on the basis of comparing teachers involved with the lowest four grades to teachers involved with the highest four.

An examination of Table 5 indicates that when t-tests were used to compare MOM means between the two groups of teachers for each of the seven biographic variables, seven statistically significant differences were found. On the basis of significant differences between MOM means, the following observations regarding the perceptions of the teachers sampled and, consequently, the validity and reliability of the MOM instrument emerged:

(1) Male teachers perceived their principals to be using the Smoothing method of conflict management more frequently than female teachers perceived their principals to be using it.

(2) Teachers at 29 years of age or less perceived their principals to be using the Smoothing, Compromising, Withdrawing, and Confrontation methods of conflict management more frequently than teachers at 30 years of age or more perceived their principals to be using these methods.

(3) Teachers with seven years of teaching experience or less perceived their principals to be using the Smoothing and Withdrawing methods of conflict management more frequently than teachers with eight years of experience or more perceived their principals to be

using these methods.

(4) No significant differences were found in the perceptions of teachers regarding their principals' methods of conflict management when teachers were grouped on the basis of post secondary education, years served with present principal, grade levels taught, or nature of current teaching assignment.

The above observations may be interpreted to mean that MOM data obtained in this study were to some extent less than accurate. With reference to teacher groups determined on the basis of teachers' ages and teachers' years of experience, the differences in perceptions as reflected in differences in MOM means should balance out because of approximately equal numbers in each group. However, with reference to teacher groups determined on the basis of sex, Table 4 indicates that 70.13 percent of the total teacher sample were females and Table 5 reveals that females did not perceive their principals to be using the Smoothing method to the same extent that male teachers perceived them to be using it.

Whether the perceptions of one group of teachers are more accurate than those of another group cannot be determined in this study. Nevertheless, Table 5 provides some evidence that teachers who were male, who were relatively young, and who were relatively inexperienced perceived their principals as more often using the Smoothing, Withdrawing, Compromising, and Confrontation methods than did teachers who were female, relatively old, and relatively experienced. Consequently, other studies involving teacher samples with significantly different biographic characteristics in terms of

teachers' sex, teachers' ages, and years of teaching experience might provide MOM findings significantly different from those emerging in this study.

V. DEMOGRAPHIC INFORMATION

Principals were asked to provide demographic information about themselves and their schools. In Section I of the PART I - PRINCIPALS questionnaire, respondents were asked to indicate their sex, age, years of post secondary education, years of specialized training in post graduate educational administration, years of experience as a principal, years served as a principal in present school, number of full-time teachers on staff, and student grade levels operating in the school.

Not only was it thought that these variables would be manageable in this study and that Section I of the questionnaire would provide an introductory warm-up to following sections dealing with LPC and ATC variables, but (of more importance) it was thought that these particular demographic variables may be of considerable relevance to the LPC, ATC, and MOM variables being investigated. The literature reviewed in Chapter II and in the present chapter suggested that an individual's ATC, LPC, and/or MOM might change over a period of time because of an intervening variable such as education or experience. Although this study is not a longitudinal study, it was thought that as an exploratory study some attention should be given to what appeared to be pertinent and manageable demographic variables.

VI. METHODOLOGY

This section deals with the sample of schools used in the study and the procedures employed in the collection and analysis of the data. All correspondence pertaining to this section is contained in Appendix C.

The Sample

Forty public schools at the elementary grade level in the city of Saskatoon, Saskatchewan, comprised the sample for this study. Thirty-nine of the schools contained grades one to eight while the one remaining school contained grades one to six. Six schools had a teaching staff ranging in size from six to ten teachers while all other schools had a teaching staff of more than ten teachers.

It was hoped that all 40 schools could be utilized in the study but one school returned all questionnaires without any having been completed and in another school only three PART II - TEACHERS questionnaires were completed and returned. Consequently, the analysis of data pertains to 38 of the 40 public schools initially contacted.

Procedures

Before contacting the Director of Education and the Superintendent of Planning, Development, and Research for the Saskatoon Public Board of Education, encouragement was received from the Chairman of the Saskatoon Public Board of Education to seek permission for carrying out the study. A letter seeking assistance for conducting the study was then sent to the Director of Education who referred the letter to the Superintendent of Planning, Development, and Research. Following

several telephone conversations with the Superintendent of Planning, Development, and Research, copies of the questionnaires and an outline of the nature of the study were forwarded to his office.

Contact with the principals was made in person at one of their regular meetings. The researcher addressed the principals as a group and explained the purpose and nature of the study to them. Questions and discussion regarding directions and instructions to principals and teachers then followed. At the end of the meeting each principal was given a large sealed envelope upon which was printed the name of his school. Inside each envelope were the following materials: (1) a list of teachers employed at that school with the names of those who were to receive PART II - TEACHERS questionnaires checked off, (2) a green-colored PART I - PRINCIPALS questionnaire and the appropriate number of yellow-colored PART II - TEACHERS questionnaires, (3) one envelope marked with a P for the principal to put his or her completed questionnaire into and seal, (4) an appropriate number of envelopes each marked with a T for the teachers to put their completed questionnaires into and seal, (5) one large envelope within which all individual sealed envelopes were to be placed and upon which was printed, Return to Hurlbert c/o School Board Office.

The group of principals were asked to take responsibility for distributing the questionnaires and return-envelopes to the appropriate teachers, for collecting the completed PART II - TEACHERS questionnaires, for placing all questionnaires including their own in the large return envelope, and for sending the return envelope by means of regular School Board-sponsored courier mail service to the

School Board Office. The Superintendent of Planning, Development, and Research urged the principals to solicit cooperation from their teachers and expressed his support for the study. In selecting teachers to participate in the study, the researcher checked off every second or third name on a school's list of teachers (depending on the number of teachers on the list) to a maximum of ten teachers for each school. In schools where less than ten teachers were employed, all teachers were asked to participate in the study.

To guarantee anonymity, no identifying marks appeared on any of the questionnaires or on the envelopes in which they were returned. Because it was necessary to know that the PART I - PRINCIPAL questionnaire and the PART II - TEACHERS questionnaires came from the same school, it was stressed to the principals that all questionnaires for their school had to be returned together. Two days after the principals had been given the questionnaires at the principals' meeting, the researcher telephoned each principal to inquire about reactions to the questionnaires and to offer assistance with any problems. Nearly all questionnaire returns arrived at the School Board Office within one week of the meeting with the principals.

When the questionnaires were received they were removed from the envelopes and checked for completeness. Unless a PART I - PRINCIPAL questionnaire was accompanied by at least five completed PART II - TEACHERS questionnaires, data from that school were not used in the study. Two schools failed to meet that criterion. All questionnaires used in the analysis of data were given code numbers and all data were entered on IBM punch cards which were then used as

a means of employing appropriate computer programs for assisting in the analysis. Data pertaining to demographic information, LPC measurement, and ATC measurement were obtained from 38 principals. Data pertaining to biographic information about teachers and to MOM measurement concerning principals were obtained from 310 teachers. Complete copies of the PART I - PRINCIPALS questionnaire and of the PART II - TEACHERS questionnaire are contained in Appendix A.

VII. SUMMARY

The data for this study were collected by the use of questionnaires. In addition to questions dealing with demographic and biographic information, the questionnaires included measures for the three variables of leadership style, attitude toward conflict, and methods of managing conflict. Fiedler's LPC measure was used to measure leadership style; ATC and MOM instruments were developed with the aid of a pilot study and a panel of judges. All elementary grade schools in the Saskatoon public school system were used to comprise the sample for this study.

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CHAPTER IV

ANALYSIS OF THE DATA AND DISCUSSION OF THE FINDINGS

A description of the findings which emerged when different types of analyses were applied to the collected data and a discussion of the findings are presented in this chapter. Section I deals with preliminary findings regarding demographic, LPC, ATC, and MOM variables which provide some description of the principals as a group and which are preparatory to analyses reported in following sections.

Section II is concerned with a description of relationships found between demographic, LPC, ATC, and MOM variables and Section III with a discussion of the relationships described in Section II. Section IV deals with differences between MOM means for principals of varying leadership styles and attitudes toward conflict while Section V presents a summary of the chapter.

The level of significance adopted for this study was the 5 percent level and any reference to significant findings will mean that the probability of chance alone having produced the observed findings is less than 5 percent.

I. PRELIMINARY FINDINGS

Demographic Information

The principals were asked to answer eight questions presented under the heading, SECTION I - PERSONAL INFORMATION. Information was obtained concerning the principals' sex, age, years of post secondary education, years of specialization in post graduate educational administration, years of experience as a principal, and years served as a principal with the present school. Questions concerning the number of full-time teachers on staff and student grade levels operating in the school were also included in this section of the questionnaire.

Frequency and percentage distributions were used to review the responses to the eight questions. Means and standard deviations were calculated for all variables except sex and student grade levels operating in the school. The data indicated that 4 of the 38 principals studied were females and that all schools but one were operating grades one to eight. Where measurement was by increments of more than one, the midpoint of the score interval was used in calculating means and standard deviations.

Table 6 summarizes the demographic information obtained from principals and indicates that all principals were over 29 years of age with 72.9 percent of the principals contained in the 30 to 39 and 40 to 49 intervals. Table 6 also indicates that while 47.4 percent of the principals had more than 5 years of post secondary education, 47.36 percent of the principals had specialized in one

Table 6

Frequency and Percentage Distributions, Means, and Standard Deviations for Demographic Information (Principals)

(N = 38)

	Score Interval Frequency and Percent of Total Sample				
Principals' Ages	Age Interval	30-39	40-49	50-59	over 59
Mean 44.50	f	13	15	7	3
S.D. 10.26	%	32.4	40.5	18.9	8.1
Principals' Years of Post Secondary Education	Year Interval	4	5	6 (or more)	
Mean 5.37	f	4	16	18	
S.D. 0.67	%	10.5	42.1	47.4	
Principals' Years of Education in Post Graduate Educational Administration	Year Interval	1	2	3	4
Mean 0.76	f	13	1	2	2
S.D. 1.10	%	34.21	2.63	5.26	5.26

Table 6 (continued)

	Score Interval Frequency and Percent of Total Sample												
Years of Experience as a Principal	Year Interval	1	2	3	4	5	6	7	8	9	10	(11-20)	(over 20)
Mean 10.36	f		1	3	5	1	5	3	3		2	12	3
S.D. 6.51	%		2.6	7.9	13.2	2.6	13.2	7.9	7.9		5.3	31.6	7.9
Years served as a Principal in Present Schools	Year Interval	1	2	3	4	5	6	7	8	9	10	(11-20)	(over 20)
Mean 4.75	f	5	6	4	7	5	4	4				3	
S.D. 3.64	%	13.2	15.8	10.5	18.4	13.2	10.5	10.5				7.9	
Number of full-time - teachers on Principals' Staffs	No. of Teachers Interval		6-9		10-14		15-19		20-24		25-29		30-34
Mean 16.13	f		4		11		15		5		2		1
S.D. 5.54	%		10.5		28.9		39.5		13.2		5.3		2.6

or more years of post graduate educational administration. Table 6 reveals a wide distribution regarding years of experience as a principal. The principals had an average of 10.36 years of experience as a principal, however, 92.1 percent of the principals had served less than 8 years in their present schools. Finally, in terms of staff size, Table 6 shows that 68.4 percent of the schools had from 10 to 19 full-time teachers on staff with the mean for all schools being 16.13 teachers.

Discussion

Because only 4 of the 38 principals studied were females, a comparison of male and female principals in terms of demographic variables was not attempted. However, the relatively small proportion of female principals in the sample indicates that this study was concerned primarily with the management of conflict between teachers by male principals. Studies involving female principals might produce findings significantly different from the ones emerging in this study. The findings also indicated that 72.9 percent of the male principals were less than 50 years of age with the possibility of a substantial period of service remaining in their administrative careers. With reference to the management of conflict between teachers, it appears reasonable to assume that most principals would have little inclination to simply "coast" or mark time until superannuation and would, consequently, be actively concerned with the management of conflict between teachers.

The principals averaged 5.37 years of post secondary education,

however, because of the open-end interval of 6 years or more which contained 18 principals, the estimated mean number of years may be biased in a downward direction. Furthermore, in terms of years of education in post graduate Educational Administration, 18 of the 38 principals had completed one or more years. These figures indicate that many of the principals were highly educated and/or professionally trained. Fiedler (1967:46-49) found that the stability of LPC scores over time depended to a considerable extent on intervening experience such as training situations and that test-retest correlations for some military groups were as low as .31. Consequently, it should be noted that the findings of this study, which involved many highly educated and/or professionally trained principals, might be significantly different from the findings of other studies involving principals with considerably less education and training.

With reference to Fiedler and the concept of intervening experience, it should also be kept in mind that the principals studied did not appear to remain at one school in acquiring experience as a principal. Although 52.7 percent of the principals had acquired eight or more years of experience as a principal, 92.1 percent of the principals had served less than eight years in their present schools. The estimated mean number of years served in their present schools was 4.75 years. These findings appear to indicate a definite trend among the principals in this study to have served as a principal in more than one school during their administrative careers. Other studies involving, for example, less mobile groups of principals might reveal significantly different findings regarding LPC.

Whether the preliminary findings of this study pertaining to the main variables of LPC, ATC, and MOM were affected by predominant demographic characteristics or not is an open question. For example, only three schools had more than 24 full-time teachers on staff and the estimated mean number of full-time teachers was 16.13. Consequently, in terms of managing conflict between teachers, most principals (68.4 percent) were involved with from 10 to 19 full-time teachers. Both MOM and ATC scores might have been significantly different if principals had been involved with considerably larger teaching staffs.

LPC Information

An LPC score for each principal was obtained in SECTION 2 of the PART I - PRINCIPALS questionnaire. All 38 respondents completed all of the 16 eight-point bi-polar adjective checklists with total LPC scores ranging from 21 to 110. The possible range of scores is from 16 to 128 when the questionnaires are properly completed. The distribution, mean, median, and standard deviation of principals' LPC scores are given in Table 7.

Discussion

The distribution of LPC scores, which ranged from 21 to 110 with a mean of 63.31 and a median of 60.50, appear to indicate considerable variation in the leadership style of the 38 principals studied. A high score indicates that the principal has described his least preferred coworker in relatively favorable terms and Fiedler (1971:129) defines a high score as one having an average item value

Table 7

Principals' LPC Scores with Mean, Median, and Standard Deviation

(N = 38)

21	47	59	67	86
38	50	60	67	87
40	50	60	69	95
43	52	61	71	99
44	54	62	72	104
45	56	62	79	110
45	58	62	80	
45	59	63	84	
Mean	63.31			
Median	60.50			
S.D.	19.51			

in the neighborhood of 5 on the 8-point scale. For the 16 LPC items used in this study a high score would be one in the neighborhood of 80. A low score is defined by Fiedler as one having an average item value in the neighborhood of 2 or in this study a total LPC score in the neighborhood of 32.

With reference to Fiedler's definitions of high and low LPC scores, it would appear that the principals in this study scored relatively high. Only two principals scored below 40, however, nine principals scored 79 or higher. A comparison of the mean and median for principals' LPC scores contained in Table 7 also indicates a lack of symmetry in the distribution of scores caused by the effect of atypically high LPC scores. These findings are interpreted to

mean that the principals in this study tended (as a group) to be more relationship-motivated than task-motivated.

ATC Information

ATC scores for each principal were obtained in SECTION 3 of the PART I - PRINCIPALS questionnaire. All 38 respondents completed all 15 questionnaire items. As in the pilot study, item responses were quantified by using weights of one to five. The scoring keys for each item in the individual ATC dimension and for each item in the organizational ATC dimension are presented in Appendix A.

When the questionnaires are properly completed the possible range of scores on the individual ATC variable is from 6 to 30; on the organizational ATC variable the possible range is from 9 to 45. Data collected from the principals resulted in scores ranging from 8 to 24 on the ATC-individual variable and from 11 to 37 on the ATC-organizational variable. The distribution, mean, median, and standard deviation of principals' ATC-individual scores are presented in Table 8. The distribution, mean, median and standard deviation of principals' ATC-organizational scores are presented in Table 9.

Discussion

An examination of the principals' scores on both ATC dimensions with reference to the possible ranges of scores, the actual ranges of scores, the medians, and the means indicates nearly symmetrical distributions of scores on each ATC dimension. Consequently, the distributions of ATC-individual scores contained in Table 8 and of ATC-organizational scores contained in Table 9 appear to indicate considerable variation in the attitudes of principals toward conflict

Table 8

Principals' ATC-Individual Scores with Mean, Median, and Standard Deviation

(N = 38)

8	13	16	18	21
10	14	17	19	21
10	14	17	19	22
10	14	17	19	22
11	14	17	19	22
12	14	17	19	24
12	14	17	19	
12	15	18	20	

Mean 16.24
Median 17.00
S.D. 3.97

Table 9

Principals' ATC-Organizational Scores with Mean, Median, and Standard Deviation

(N = 38)

11	18	22	25	29
11	19	22	26	29
13	19	23	26	32
13	21	23	27	33
13	21	23	27	36
16	21	24	28	37
16	21	24	28	
18	22	25	29	

Mean 22.92
Median 23.00
S.D. 6.47

between teachers.

MOM Information

MOM scores for each principal were obtained in the METHODS OF MANAGING CONFLICT section of the PART II - TEACHERS questionnaire. Responses to each of the 28 items were quantified by use of the following weights: A (Very Frequently or Always) was scored 5, B (Often) was scored 4, C (Occasionally) was scored 3, D (Seldom) was scored 2, and E (Very Rarely or Never) was scored 1.

When teachers had responded to only a few MOM questions, their questionnaires were not included in the analysis of collected data. When teachers appeared to have worked through the entire questionnaire, even though some items were not answered, their questionnaires were regarded by the researcher as having been completed and were included in the analysis of data. From the total sample of 344 teachers who returned questionnaires, 31 were eliminated from the study because the respondents had not appeared to work through the entire questionnaire.

The computer was programmed to derive mean scores for each principal on each of the five methods of managing conflict. Non-response items were not used in the calculation of mean scores. The possible range of derived mean scores for each method of management was from 1 to 5. Table 10 contains the derived score for each principal on each of the five methods of conflict management. Means and standard deviations for each distribution of derived scores are also included in Table 10. The Forcing method of managing conflict received the lowest mean score of 1.83 while the Confrontation method

Table 10

Distributions, Means, and Standard Deviations of Derived MOM Scores for Principals

(N = 38)

Principal	Teachers Questionnaires Completed	Derived MOM Scores				
		Confrontation	Compromising	Withdrawing	Forcing	Smoothing
1	9	3.62	2.78	2.42	1.58	3.21
2	7	3.46	2.32	1.74	1.60	3.05
3	9	3.81	2.39	1.92	1.67	2.86
4	7	2.90	2.73	2.76	2.26	3.02
5	9	2.91	2.73	2.18	2.31	2.59
6	10	2.50	2.65	3.35	1.56	3.48
7	10	2.52	2.50	2.88	1.52	3.12
8	6	3.78	2.90	1.64	1.57	2.75
9	6	3.26	2.50	2.31	1.20	2.94
10	6	2.56	2.10	2.69	1.47	2.89
11	10	3.30	2.07	2.33	1.33	2.67
12	9	3.99	1.60	1.50	1.34	2.96

Table 10 (continued)

Principal	Teachers Questionnaires Completed	Derived MOM Scores				
		Confrontation	Compromising	Withdrawing	Forcing	Smoothing
13	9	3.26	2.89	2.06	2.38	3.22
14	5	3.10	2.67	2.81	2.04	3.07
15	10	2.81	2.33	1.92	1.64	2.63
16	9	3.04	2.07	2.02	1.42	2.91
17	9	2.52	2.40	1.93	3.44	1.72
18	8	3.15	2.57	2.75	2.42	3.21
19	10	2.87	2.32	2.22	2.00	2.85
20	10	3.13	2.42	1.72	1.36	2.33
21	9	3.65	3.24	2.37	2.43	3.02
22	10	2.48	2.86	3.22	2.62	2.85
23	5	2.77	2.56	3.07	2.00	2.73
24	10	2.79	2.01	2.78	2.94	2.55
25	9	3.15	2.71	2.56	2.16	2.76
26	9	3.78	2.36	1.46	1.22	2.61
27	5	3.36	2.13	1.70	1.37	2.73

Table 10 (continued)

Principal	Teachers Questionnaires Completed	Derived MOM Scores				
		Confrontation	Compromising	Withdrawing	Forcing	Smoothing
28	7	3.81	2.19	1.29	1.46	2.94
29	5	2.60	2.02	2.23	2.16	2.80
30	9	3.21	2.08	2.26	1.11	2.76
31	8	3.25	2.09	1.29	1.30	2.31
32	5	3.13	2.08	1.48	1.24	2.83
33	8	3.22	2.87	2.22	2.42	2.61
34	10	2.63	3.00	3.37	2.02	3.33
35	6	2.50	2.10	3.51	2.83	2.69
36	9	3.71	2.47	1.74	1.33	3.17
37	10	3.42	2.30	1.57	1.56	2.87
38	8	3.06	1.85	1.45	1.29	2.77
Mean		3.13	2.42	2.23	1.83	2.83
S.D.		0.44	0.36	0.62	0.57	0.31

received the highest mean score of 3.13.

Discussion

An examination of derived MOM scores contained in Table 10 indicates that individual principals do vary in the frequency with which different methods are used to manage conflict between teachers. For example, principal number 1 was described by teachers as using the Confrontation method more often than any other method with the Forcing method being used least often of any method. However, principal number 17 was described by teachers as using the Forcing method most often and the Smoothing method least often. MOM scores were also interpreted to mean that all five methods of conflict management appear to exist in the educational system studied. The relatively low mean score for the Forcing method, however, is interpreted to indicate the possibility that the Forcing method may not exist as a visible method of conflict management in some schools studied. For example, principal number 30 has a derived score of 1.11 for the Forcing method and a score of 1.0 means that the method is very rarely or never used by the principal.

II. RELATIONSHIPS BETWEEN VARIABLES

Correlational procedures were used to explore relationships between 15 variables. The 15 variables consisted of the 5 methods of managing conflict, the principal's ATC-individual, the principal's ATC-organizational, the principal's LPC, and 7 variables pertaining to the principal's demographic characteristics. The seven demographic variables consisted of the principal's sex, age, years of post

secondary education, years of specialization in Educational Administration, years of experience as a principal, years served as a principal in the present school, and number of full-time teachers on staff.

Fox (1969:196) stated, "By relationship, in correlation, we mean any tendency in the two sets of data to vary consistently." Fox (pp. 140-59) also stated that for many multiple-category discrete variables, the number of categories is considered large enough for research and statistical purposes to treat the variable as if it were continuous and that "continuous variables always have the potential for interval measurement." The data for all 15 variables, except sex, were treated as being derived from continuous variables at the interval level. Because it was assumed that the population of principals sampled was normally distributed on all variables and that any relationships between the variables would be linear, the Pearson product moment correlation, symbolized by the lowercase r, and t-tests of significance were used for exploring relationships between the variables.

All possible relationships between the 15 variables are provided for in the correlational matrix presented in Table 11. An examination of Table 11 reveals that 18 statistically significant correlations, at the .05 level or beyond, were found. Significant positive correlations were found between the following pairs of variables: (1) age and experience, (2) age and years served in present school, (3) post secondary education and experience, (4) experience and years served in present school, (5) experience and

Withdrawing, (6) LPC and Confrontation, (7) ATC-individual and ATC-organizational, (8) Compromising and Withdrawing, (9) Compromising and Forcing, (10) Withdrawing and Forcing, and (11) Withdrawing and Smoothing.

Significant negative correlations were found between (1) experience and ATC-individual, (2) experience and Confrontation, (3) years served in present school and ATC-individual, (4) years served in present school and Confrontation, (5) LPC and Forcing, (6) Confrontation and Withdrawing, and (7) Confrontation and Forcing.

Because data concerning the variable of sex could not properly be treated as interval data derived from a continuous variable, point biserial correlation procedures were used to examine the relationships between (1) sex and ATC-individual, (2) sex and Confrontation, (3) sex and Withdrawing. The point biserial correlation is a Pearson product-moment correlation and refers to two series of persons being observed on one variable (Glass and Stanley, 1970:163). However, no significant correlations were found between principals' sex and the three variables of ATC-individual, Confrontation, and Withdrawing.

Partial Correlations

It was recognized that two variables do not interact in the abstract but usually interact in the presence of, and are affected by, many other variables (Fox, 1969:212). Consequently, an attempt was made to identify interrelationships among three or more variables by use of partial correlation procedures. Partial correlation procedures were used to remove or "partial out" the effect of other variables on correlations between LPC, ATC, and MOM variables when it was thought

other variables tended to inflate those correlations. Walker and Lev (1953:340) stated, "Sometimes the computed coefficient of correlation between two variables is misleading because there is little or no intrinsic correlation between them beyond what is induced by their common dependence upon a third variable (or upon several variables)."

An examination of correlations contained in Table 11 indicated that of the seven demographic variables pertaining to principals, four were each significantly correlated with one or more of the other 14 variables. Consequently, the linear influence of these four demographic variables was taken out of correlations between LPC, ATC, and MOM variables. First-order, second-order, third-order, and fourth-order partial correlation procedures were used to remove the effects of the following four variables on all correlations (both significant and non-significant) between principals' LPC, ATC, and MOM scores:

1. principals' ages partialed out,
2. principals' years of post secondary education partialed out,
3. principals' experience partialed out,
4. years served by principal in present school partialed out.

Partial correlations may be symbolized by rxy.1 and in this case means the partial correlation between x and y variables when taking out the effects of a third variable, number 1, which has a linear relationship with both x and y. The subscripts preceding the point are called primary subscripts and those following the point are secondary subscripts. The number of secondary subscripts indicates the order of the partial correlation. For example, a

Table 11

Intercorrelations Between Principals' Demographic Characteristics, ATC, LPC, and MOM Using Pearson r's

(N = 38)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Sex		.09	-.18	.07	-.03	.26	.20	.14	.23	.16	.21	.05	-.31	-.11	-.06
2. Age			.21	.19	.43**	.32*	.05	-.02	-.24	-.12	-.15	.15	.06	-.13	.14
3. Post Sec. Ed.				.29	.34*	.00	-.08	-.27	-.11	-.03	-.01	.00	.12	-.17	.24
4. Spec. in Ed.Adm.					.06	.05	.13	-.12	.04	-.05	.04	-.14	-.03	-.17	.15
5. Experience						.46**	.19	-.16	.39*	-.28	-.42**	.18	.51**	.21	.20
6. Years in Present School							.05	-.14	-.37*	-.17	-.46**	.03	.31	.30	.04
7. Number of Teachers								-.09	-.00	-.03	.00	.10	.12	.00	.27
8. LPC									-.01	-.08	.44**	-.14	-.26	-.35*	.09
9. ATC-individual										.79**	.25	.11	-.11	-.11	-.00
10. ATC-organizational											.18	.24	.05	-.00	.18
11. Confrontation												-.03	-.67**	-.46**	.11
12. Compromising													.39*	.37*	.28
13. Withdrawing														.49**	.34*
14. Forcing															-.24
15. Smoothing															

* Significant at .05 level for a two-tailed test (Critical value for r = .320)

** Significant at .01 level for a two-tailed test (Critical value for r = .412)

second order partial correlation would be indicated by rxy.12 and means that the effects of principals' ages and principals' years of post secondary education have been removed from the correlated x-y variables.

All statistically significant zero-order, first-order, second-order, third-order, and fourth-order partial correlations involving LPC, ATC, and MOM variables with the effects of principals' ages, post secondary education, experience, and years served in present school partialed out are contained in Table 12. Only in one instance did a non-significant zero-order correlation between two of the LPC-ATC-MOM variables attain statistical significance when partial correlation procedures were used. Consequently, Table 12 includes the results of partial correlation procedures applied to the correlation between ATC-organizational and Compromising even though the zero-order correlation between the two variables is non-significant. All other non-significant zero-order, first-order, second-order, third-order, and fourth-order partial correlations involving LPC, ATC, and MOM variables with the effects of principals' ages, post secondary education, experience, and years served in present school partialed out are contained in Table 20, Appendix D.

An examination of Table 12 indicates that partialing out the effects of principals' ages, post secondary education, experience, and/or years served in the present school had a substantial effect on the magnitude of three zero-order correlations. Taking out the effect of principals' experience and/or years served in present school lowered the negative correlation between Confrontation and Withdrawing

Table 12

Zero-Order, First-Order, Second-Order, Third-Order, and Fourth-Order Partial Correlations involving LPC, ATC, and MOM Variables

(N = 38)

Order of Correlation	LPC(x) and CON(y)	LPC(x) and FOR(y)	CON(x) and WIT(y)	CON(x) and FOR(y)	COM(x) and WIT(y)	COM(x) and FOR(y)	WIT(x) and FOR(y)	WIT(x) and SMO(y)	ATC-ORGAN(x) and COM(y)	ATC-IND(x) and ATC-ORGAN(y)
rxy	.44**	-.35*	-.67**	-.46**	.39*	.37*	.49**	.34*	.24	.79**
rxy.1	.44**	-.36*	-.67**	-.49**	.39*	.40*	.50**	.34*	.28	.79**
rxy.2	.45**	-.32*	-.67**	-.47**	.39*	.37*	.52**	.32*	.25	.79**
rxy.3	.41*	-.33*	-.57**	-.41*	.35*	.34*	.44**	.28	.33*	.77**
rxy.4	.42**	-.32*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	.79**
rxy.12	.45**	-.32*	-.67**	-.47**	.39*	.37*	.52**	.32*	.25	.79**
rxy.13	.41*	-.33*	-.57**	-.41*	.35*	.34*	.44**	.28	.33*	.77**
rxy.14	.42**	-.32*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	.79**
rxy.23	.41*	-.33*	-.57**	-.41*	.35*	.34*	.44**	.28	.33*	.77**
rxy.24	.42**	-.32*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	.79**
rxy.34	.42**	-.33*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	1.33
rxy.123	.41*	-.33*	-.57**	-.41*	.35*	.34*	.44**	.28	.33*	.77**
rxy.124	.42**	-.32*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	.79**
rxy.134	.42**	-.33*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	1.33
rxy.234	.42**	-.33*	-.62**	-.37*	.40*	.37*	.43**	.35*	.26	1.33
rxy.1234	.42*	-.33	-.62**	-.37*	.40*	.37*	.43*	.35*	.26	1.33

* Significant at .05 level for a two-tailed test. ** Significant at .01 level for a two-tailed test.

rxy.1 Principals' age partialed out.

rxy.2 Principals' years of post secondary education partialed out.

rxy.3 Principals' experience partialed out.

rxy.4 Years served by principal in present school partialed out.

rxy.12 Principals' age and principals' years of post secondary education partialed out.

from -.67 to as low as -.57. Taking out the effect of years served in present school reduced the negative correlation between Confrontation and Forcing from -.46 to -.37. Taking out the combined effect of principals' experience and years served in present school increased the correlation between ATC-individual and ATC-organizational from .79 to 1.33. Walker and Lev (1953:344-45) stated that the relations between zero-order and partial coefficients are somewhat indefinite and when coefficients are related in such a way that partial correlation procedures lead to partials larger than 1, the coefficients are inconsistent and do not meet the necessary requirement of consistency among coefficients when using partial correlation procedures.

Table 12 reveals that statistically significant correlations between LPC and MOM variables were retained in all instances except two. The correlation of -.35 for LPC and Forcing dropped to the non-significant correlation of -.33 when fourth-order partial correlation procedures were used and the number of degrees of freedom was decreased by 1 for each secondary subscript. Table 12 also shows that partialing out the effect of principals' experience reduced the statistically significant correlation of .34 for Withdrawing and Smoothing to the non-significant correlation of .28. Furthermore, when second-order, third-order, and fourth-order correlation procedures were used involving principals' experience the correlation coefficient emerging continued to be .28 except where the effect of years served in present school was also partialed out. If principals' experience as well as years served in present school were partialed out, the statistically significant correlation coefficient remained

relatively stable.

Table 11 indicated that partial correlation procedures could be used to examine relationships between the ATC-individual variable and two-demographic variables and relationships between the Confrontation variable and two demographic variables. Therefore, first-order partial correlation procedures were used to examine relationships between the variables of ATC-individual, experience, and years served in present school. When the years served in present school was partialed out of the correlation between ATC-individual and experience, the correlation coefficient dropped from -.39, significant at the .05 level, to -.26 and was not statistically significant. When principals' experience was partialed out of the correlation between ATC-individual and years served in present school, the correlation coefficient dropped from -.37, significant at the .05 level, to -.23 and was not statistically significant.

First-order partial correlation procedures were also used to examine relationships between the variables of Confrontation, experience, and years served in present school. When the years served in present school was partialed out of the correlation between Confrontation and experience, the correlation coefficient dropped from -.42, significant at the .01 level, to the statistically non-significant coefficient of -.26. When principals' experience was partialed out of the correlation between Confrontation and years served in present school, the correlation coefficient dropped from -.46, significant at the .01 level, to -.33, significant at the .05 level.

III. DISCUSSION OF THE RELATIONSHIPS BETWEEN VARIABLES

Although it is widely recognized that correlation is not *prima facie* evidence for causation and that direction for a causal relationship should only be assumed cautiously, correlation findings may constitute an important first step in the research process. Glass and Stanley (1970:122) observed that, "While correlation does not directly establish a causal relationship it may furnish clues to causes." Interpretations of apparent interrelationships between the 15 variables studied are presented upon the basis of the considerations referred to above.

Demographic Variables

Some relationships were expected and were found between the demographic variables pertaining to principals. Significant positive correlations between age and experience, age and years in present school, post secondary education and experience, and years in present school and experience were found.

For example, a correlation of .34, significant at the .05 level, was found between post secondary education and experience. This finding was to be expected and suggests the possibility that the more experienced principals had acquired relatively more education at the beginning of their careers than had inexperienced principals and had, consequently, been given a principalship sooner than the not so highly educated principals. However, the correlation also suggests the possibility that with increasing years of experience there was increasing opportunity for further education through summer school

and night classes.

Demographic Variables and the LPC Variable

Although no statistically significant correlations were found between the LPC variable and the seven demographic variables, Table 11, page 103, reveals negative correlation coefficients of -.12 between LPC and specialization in Educational Administration, -.14 between LPC and years served in present school, -.16 between LPC and experience, and -.27 between LPC and post secondary education. Considered together, the direction of these negative relationships appears to indicate the possibility of principals becoming more task-oriented (low LPC) with increasing education and experience.

Fiedler's findings (1967:46-49) regarding the stability of LPC scores over time, where it was shown that stability depended to a considerable extent on intervening experience, support the contention that LPC scores may significantly change. The negative correlations found in this study appear to indicate that if there is a significant relationship between LPC scores and post secondary education and/or experience, it is a negative relationship. It is also recognized that regardless of any change in an individual principal's LPC, it may be that the more task-oriented the principal to begin with (low LPC), the greater the motivation to acquire post secondary education.

Demographic Variables and ATC Variables

When partial correlation procedures were used to remove the effect of years served in present school from the correlation between

ATC-individual and experience, the correlation dropped from -.39 to -.26 and was no longer statistically significant. The same procedures were used to partial out the effect of principals' experience from the correlation between ATC-individual and years served in present school causing the correlation of -.37 to drop to a non-significant correlation of -.23.

It appears that the statistically significant correlations of -.39 and -.37 were each inflated by the presence of a combination of experience and years served in the present school. These findings were interpreted to mean that there is a significant negative relationship between principals' experience combined with years served in the present school and the ATC-individual variable. These findings appear to indicate, consequently, that the more experienced the principal and the longer the time spent in his or her present school, the less favorable the principal's attitude toward conflict between teachers tends to be when the conflict is considered in terms of individuals. However, no significant correlations were found between the ATC-organizational variable and the variables of experience and years served in present school although negative correlation coefficients of -.28 for ATC-organizational and experience and of -.17 for ATC-organizational and years served in present school did emerge from the study. These findings provide some support for the contention that the attitude of principals toward conflict between teachers is not unidimensional in nature.

No significant correlations were found between ATC variables and other demographic variables, however, a negative correlation

coefficient of -.24 was found between principals' age and ATC-individual, and of -.12 between principals' age and ATC-organizational. The direction of these findings indicates the possibility of a trend among principals to become less favorable in their attitude toward conflict as their age increases.

Demographic Variables and MOM Variables

When partial correlation procedures were used to remove the effect of years served in present school from the correlation between Confrontation and principals' experience, the correlation dropped from -.42 to the statistically non-significant coefficient of -.26. When similar procedures were used to remove the effect of principals' experience from the correlation between Confrontation and years served in present school, the correlation dropped from -.46 to -.33 and remained significant at the .05 level.

These findings appear to indicate that there is a stronger negative relationship between Confrontation and years served in present school than between Confrontation and principals' experience. In fact, with the effect of years served in present school partialed out, no statistically significant correlation was found between Confrontation and principals' experience. However, the partial correlation procedures do appear to indicate that an increase in principals' experience combined with an increase in years served in present school tends to result in less frequent use of the Confrontation method than when the effects of the experience and years-spent-in-present-school variables operate independently of each other.

A correlation of .51 was also found between the MOM variable of Withdrawing and principals' experience. This correlation was interpreted to mean that the greater the experience of the principal the more often the Withdrawing method tended to be used.

Reasons why an increase in years served in present school and in years of experience might result in less frequent use of Confrontation and more frequent use of Withdrawing can only be speculated upon. If the assumption is made that the Withdrawing method constitutes the "easy way out" of problems then it would appear that the reasons may be more closely related to a less demanding approach to school administration than to any concern for maintaining or improving the level of school performance. However, it should also be recognized that with increasing experience and years served in present schools, principals may find the Withdrawing method to be more effective than the Confrontation method in maintaining or improving school performance.

No other statistically significant correlations were found between demographic variables and MOM variables when using Pearson r's and when point biserial correlational procedures were used to explore the relationships between sex and Confrontation and sex and Withdrawing significant correlations still failed to emerge. Nevertheless, the relatively high positive, although non-significant, correlations between Withdrawing and years served in present school (.31), and Forcing and years served in present school (.30) indicate the possibility of a tendency among principals to increasingly use both the Withdrawing and Forcing methods of managing conflict between

teachers as the number of years served in their present schools increases.

The LPC Variable and ATC Variables

The correlation coefficients found between LPC and ATC-individual and LPC and ATC-organizational were -.01 and -.08 respectively. Table 20, Appendix D, reveals that partial correlation procedures, which were employed to take out the effect of four demographic variables, made very little difference to the magnitude of these two correlations. These findings appear to indicate no relationship of any significance whatever between LPC and ATC. While these findings may not directly support Fiedler's interpretation of LPC as a motivational measure or an index of a goal hierarchy, they appear to not contradict his interpretation. Consequently, the findings of this study would tend to support the contention that ATC and LPC are independent and unrelated variables.

The LPC Variable and MOM Variables

Two statistically significant correlations were found between LPC and methods of managing conflict. A positive correlation of .44, significant at the .01 level, found between LPC and Confrontation was interpreted to mean that the more relationship-oriented the principal the more likely Confrontation was used as a method of managing conflict between teachers or the more task-oriented the principal the less likely Confrontation was used as a method of managing conflict between teachers. A negative correlation of -.35,

significant at the .05 level, was found between LPC and Forcing. This was interpreted to mean that the more relationship-oriented the principal the less likely Forcing was used as a method of conflict management and the more task-oriented the principal the more likely Forcing was used as a method of managing conflict between teachers. Although statistically significant correlations had not been found between the LPC variable and demographic variables, the demographic variables of principals' age, years of post secondary education, experience, and years served in present school were partialed out of the correlations between LPC and Confrontation and LPC and Forcing. In both instances statistically significant correlations were retained when partial correlation procedures were used to take out the effect of each of the four demographic variables referred to above (See Table 12, page 105).

These findings appear to indicate that there are significant relationships between LPC and Confrontation and LPC and Forcing which are not inflated, and, consequently, not misleading because of common dependence upon a third variable such as principals' age, years of post secondary education, experience, or years served in present school. Fiedler's (1967) interpretation of LPC scores appears to offer an explanation for the negative relationship between LPC and Forcing and the positive relationship between LPC and Confrontation. In very general terms, Fiedler defined two styles of leadership in which high LPC leaders tended to be democratic, nondirective, considerate and relationship-oriented while low LPC leaders tended to be autocratic, directive, controlling and task-oriented. It then

follows that the Forcing method appears to be compatible with a low LPC style of leadership while the Confrontation method appears to be compatible with a high LPC style of leadership.

No statistically significant relationships were found between the LPC variable and other MOM variables, although, a relatively high negative correlation coefficient of -.26 was found between LPC and Withdrawing. Removing the effect of the four demographic variables reduced the correlation no lower than -.22. These findings may indicate the possibility of a tendency for the Withdrawing method to be used less often when principals are more relationship-oriented than task-oriented. It may also be, however, that relationship-oriented principals were perceived by teachers as being less "withdrawing" than task-oriented principals.

ATC Variables and MOM Variables

Although no statistically significant zero-order correlations were found between ATC and MOM variables, the direction of the coefficients of .25 between ATC-individual and Confrontation and of .18 between ATC-organizational and Confrontation indicates the possibility of a tendency for the Confrontation method to be used more often when principals have a more favorable attitude toward conflict. However, an examination of Table 20, Appendix D, reveals that taking out the effect of the four demographic variables reduced the coefficients of .25 and .18 to .15 and .11 respectively. Consequently, it would appear that more research is required to explore the possibility of a relationship between ATC variables and

Confrontation.

When partial correlation procedures were employed to take out the effects of principals' age, principals' years of post secondary education, principals' experience, and years served in present school on the correlation of .24 between ATC-organizational and Compromising, the coefficient increased to the statistically significant magnitude of .33 (See Table 12). Walker and Lev (1953:344) stated that in the data with which social scientists deal the partial coefficients are more often smaller than the related zero-order coefficients. However, they also point out that, "Occasionally a research worker encounters a partial coefficient which is larger than the zero-order coefficient with the same primary subscripts."

An examination of Table 12 indicates that if the effect of principals' experience is partialed out of the correlation between ATC-organizational and Compromising, the correlation coefficient attains statistical significance--except where years served in present school is also partialed out. When the effect of both principals' experience and years served in present school is partialed out or if the effect of both together is "left in," the correlation of .24 between ATC-organizational and Compromising remains relatively stable. This phenomenon may be interpreted to mean that the positive relationship between ATC-organizational and Compromising is confounded both by the effect of principals' experience and the combined effect of principals' experience and years served in present school. Walker and Lev (p. 343) stated there is no rule to follow in choosing between a zero-order correlation and a

partial. They concluded, "Sometimes the zero-order r is really spurious, sometimes the partial, depending on the use to be made of it."

If the correlation between ATC-organizational and Compromising had remained statistically significant whenever the effect of principals' experience was partialed out, the findings would be more meaningful and would have more readily interpretable significance. However, on the basis of this study there appears to be little justification for the contention that the more favorable the attitude of an inexperienced principal toward organizational conflict, the more likely the principal is to use the Compromising method of conflict management. Such a conclusion does not take account of the years-served-in-present-school variable and its relation to the principals'-experience variable.

MOM Variables

Negative correlations of -.67 and -.46 both significant at the .01 level, were found between Confrontation and Withdrawing and Confrontation and Forcing respectively. An examination of Table 12, page 105, reveals that when first-order, second-order, third-order, and fourth-order partial correlation procedures were used to take out the effect of principals' age, years of post secondary education, experience, and years served in present school, statistically significant correlations were retained.

These findings appear to indicate that as the use of the Confrontation method by principals increased, the use of the Withdrawing method decreased, or vice versa, and as the use of the

Confrontation method increased, the use of the Forcing method by principals decreased, or vice versa. With reference to the positive correlation of .49 between Forcing and Withdrawing, these findings may mean that the Confrontation, Withdrawing, and Forcing methods occupy polar positions when the five methods of management are conceptualized as an MOM continuum.

Positive correlations of .38 and .36, both significant at the .05 level, were found between Compromising and Withdrawing and Compromising and Forcing respectively. Again, when partial correlation procedures were used to remove the effect of the four demographic variables, statistically significant correlations were retained in all instances. Because a positive correlation of .49 was also found between Withdrawing and Forcing and was retained as a statistically significant correlation throughout partial correlation procedures involving the four demographic variables, these findings appear to indicate that an increase or decrease in the usage of any one of the three methods (Compromising, Withdrawing, or Forcing) tended to be accompanied by an increase or a decrease in usage of the remaining two methods.

A positive correlation of .34, significant at the .05 level, was found between Smoothing and Withdrawing. When partial correlation procedures were employed to take out the effect of principals' experience, as well as the effect of years served in present school, the correlation coefficient remained relatively stable but if principals' experience was partialed out without years served in present school also partialed out, the coefficient dropped to the non-significant figure of .28. This phenomenon appears to indicate that as a separate

factor principals' experience had a confounding effect on the relationship between Smoothing and Withdrawing by inflating the correlation coefficient from .28 to .34. However, when the effect of principals' experience in combination with the effect of years served in present school was partialed out, a statistically significant correlation was retained. This finding is interpreted to mean that principals in this study who used either the Smoothing method or Withdrawing method also tended to use the other. The justification for this interpretation is that it would appear reasonable to be less concerned with findings which result from isolating the effect of one variable (in this case, principals' experience) on the relationship between Smoothing and Withdrawing and more concerned with the combined effect of both principals' experience and years served in present school.

While no statistically significant correlation was found between Smoothing and Forcing, a negative zero-order coefficient of -.24 increased in magnitude to -.31 when partial correlation procedures were used to take out the effect of the four demographic variables. These findings appear to indicate the possibility of a tendency for an increase in the use of one method to be accompanied by a decrease in use of the other method.

Whether two or more of the five methods of managing conflict share a common dependence on some intervening variable or combination of variables and, consequently, vary together in the same direction can only be speculated upon without further development and refinement of the MOM instrument. For example, a positive correlation of .47, significant at the .01 level, between Withdrawing and Forcing was

considered by the researcher to be somewhat surprising. However, one possible explanation is that although the Forcing and Withdrawing methods appear to be conceptually distinct and independent methods of conflict management, teachers may have perceived those principals who frequently used the Forcing method as principals who tended to withdraw and remain aloof from the everyday concerns of teachers.

Another possible explanation is that principals who frequently used the Forcing method of managing conflict also frequently used the Withdrawing method so that they exercised their authority only when they considered it necessary.

IV. DIFFERENCES BETWEEN MOM MEANS

On the basis of LPC and ATC scores the principals were divided into groups. Those principals whose LPC score was above the sample mean and whose ATC score was also above the sample mean were treated as the high-ATC, high-LPC group. Those principals who had both ATC and LPC scores below the respective sample means constituted the low-ATC, low-LPC group. Respective mean scores and variances for the two groups on each of the five methods of managing conflict were then compared by use of F-tests and t-tests. Three separate versions of ATC were used in the calculations: ATC-individual, ATC-organizational, and combined ATC-individual and ATC-organizational scores. The groups ranged in size from 7 to 13 principals.

Table 13 reveals mean scores for the LPC-ATC-Individual groups on the five methods of managing conflict while Table 14 deals with the ATC-organizational version and Table 15 with the version of ATC-

Table 13

MOM Means for the LPC-ATC-
Individual Groups

	MOMS	Con.*	Com.	Wit.	For.	Smo.
HI-LPC HI-ATC (n=8)	Means	3.44	2.35	1.92	1.60	2.83
LO-LPC LO-ATC (n=11)	Means	2.92	2.45	2.25	2.02	2.76

* Difference significant at the .01 level for a one-tailed test and the .02 level for a two-tailed test.

Table 14

MOM Means for the LPC-ATC-
Organizational Groups

	MOMS	Con.*	Com.	Wit.	For.	Smo.
HI-LPC HI-ATC (n=7)	Means	3.44	2.36	1.94	1.60	2.80
LO-LPC LO-ATC (n=11)	Means	3.04	2.48	2.22	1.89	2.83

* Difference significant at the .05 level for a two-tailed test.

Table 15

MOM Means for the LPC-ATC-Individual and ATC-Organizational Combined Groups

	MOMS	Con.*	Com.	Wit.	For.	Smo.
HI-LPC HI-ATC (n=7)	Means	3.44	2.36	1.94	1.60	2.80
LO-LPC LO-ATC (n=13)	Means	2.96	2.50	2.28	2.07	2.75

* Difference significant at the .01 level for a one-tailed test and .02 level for a two-tailed test.

Table 16

MOM Variances for High and Low LPC-ATC Principals Using the Combined ATC-Individual and ATC-Organization Version of ATC

	MOM	Con.	Com.	Wit.	For.	Smo.**
HI-LPC HI-ATC (n=7)	Var.	0.25	0.08	0.59	0.33	0.02
LO-LPC LO-ATC (n=13)	Var.	0.11	0.12	0.34	0.39	0.18

** Difference significant at the .01 level for a two-tailed test.

individual and ATC-organizational scores combined. An examination of the tables indicates significant differences in mean scores between high LPC-ATC principals and low LPC-ATC principals on the Confrontation method of managing conflict. Significant differences between the groups regarding use of the Confrontation method were found using each version of ATC.

No significant differences were noted regarding MOM variances except for the method of Smoothing. For all three versions of ATC, F-tests revealed significant differences at the .05 level (nondirectional) between the variances of high and low LPC-ATC principals on the Smoothing variable. An examination of Table 16 shows that the variance of low LPC-ATC principals' scores was significantly larger than the variance for high LPC-ATC principals on the Smoothing method of managing conflict when using the combined ATC-individual and ATC-organizational version of ATC.

An examination of MOM means within the high LPC-ATC group of principals and within the low LPC-ATC group, for all three versions of ATC, reveals that the method of Confrontation consistently received the highest mean score while Forcing consistently received the lowest mean score. Tables 13, 14, and 15 indicate that mean scores for the five methods of managing conflict, regardless of LPC-ATC grouping or ATC-version, may be ordered from low mean to high mean as follows: (1) Forcing, (2) Withdrawing, (3) Compromising, (4) Smoothing, and (5) Confrontation.

Discussion

The statistically significant difference in mean scores found

between high LPC-ATC principals and low LPC-ATC principals on the Confrontation method of managing conflict appears to indicate that high LPC-ATC principals more frequently used the Confrontation method of managing conflict between teachers than did low LPC-ATC principals. This finding provides further empirical support for the interpretation given to the positive correlation between Confrontation and LPC reported and discussed earlier in this chapter. In addition, it seems reasonable to assume that high ATC principals, with a more favorable attitude toward conflict than low ATC principals, would more often use the Confrontation method of managing conflict between teachers.

The statistically significant difference noted in variances on the Smoothing method appears to be of interest to this study and is interpreted to mean that low LPC-ATC principals tended more toward extremes in the frequency with which they used the Smoothing method than did high LPC-ATC principals. An explanation for this finding may be that because principals in the low LPC-ATC group tended to be both directive and "anti-conflict," they were not as consistent in using the Smoothing method as were the relationship-oriented principals in the high LPC-ATC group.

When sample means were calculated for each of the five distributions of derived scores (i.e., for each of the five methods of conflict management) they were found to range consistently from low mean to high mean in the following order: (1) Forcing, (2) Withdrawing, (3) Compromising (4) Smoothing, and (5) Confrontation. This finding is interpreted to mean that the sample of

principals studied, when considered as a total group, may have used some methods of conflict management more often than other methods. On the basis of these findings there appears to be a strong possibility that the principals studied tended to use the Confrontation method of conflict management more often than they used the Forcing method.

V. SUMMARY

Pearson product moment correlations, biserial correlations, and partial correlation procedures were used to explore relationships between the ATC, LPC, and MOM variables as well as between variables pertaining to the principals' age, years of post secondary education, years of specialization in Educational Administration, years of experience as a principal, years served as a principal in the present school, and number of full-time teachers on staff. The level of significance adopted for the analysis of the data was the 5 percent level.

Significant positive correlations were found between the following pairs of variables: (1) age and experience, (2) age and years served in present school, (3) post secondary education and experience, (4) experience and years served in present school, (5) experience and Withdrawing, (6) LPC and Confrontation, (7) ATC-individual and ATC-organizational, (8) Compromising and Withdrawing, (9) Compromising and Forcing, (10) Withdrawing and Forcing, and (11) Withdrawing and Smoothing. Significant negative correlations were found between (1) experience and ATC-individual, (2) experience

and Confrontation, (3) years served in present school and ATC-individual, (4) years served in present school and Confrontation, (5) LPC and Forcing, (6) Confrontation and Withdrawing, and (7) Confrontation and Forcing.

The findings regarding possible relationships between LPC, ATC, and MOM appeared to indicate that LPC and ATC were independent or unrelated variables. However, correlations suggested that relationship-oriented principals were more likely to use the Confrontation method than task-oriented principals and less likely to use the Forcing method than task-oriented principals. No statistically significant relationships were found between ATC variables and MOM variables.

High and low LPC-ATC groups of principals were examined in terms of differences in MOM mean scores. A significant difference between the means of high LPC-ATC principals and low LPC-ATC principals on the variable of Confrontation was found with the high LPC-ATC group having the higher mean score. A statistically significant difference in variances on the Smoothing variable was also noted with the low LPC-ATC group having the greater amount of variance in Smoothing scores.

In examining the differences between MOM means the data were interpreted to mean that high LPC-ATC principals more frequently used the Confrontation method of managing conflict between teachers than did the low LPC-ATC principals and that low LPC-ATC principals tended more toward extremes in the frequency with which they used the Smoothing method than did high LPC-ATC principals.

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CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

In this chapter the problem, procedures, and results of the study will be summarized. Conclusions will be stated and the implications for practice and for further research will be discussed.

I. SUMMARY

There appears to be an increasing realization of the importance of interpersonal conflict in the analysis of organizational problems. However, the literature examined by the researcher indicated that not only are there varying attitudes in society toward interpersonal conflict but also that distinctly different methods of managing interpersonal conflict within organizations may be employed. In addition, empirical studies by, for example, Burke (1970) suggested that leaders' attitudes regarding the desirability or undesirability of conflict constitute a critical variable in the choice of managerial methods for handling conflict. Furthermore, the work of Fiedler (1967) indicated that the leadership style of a leader, such as a principal, might also influence the methods used by that principal for managing conflict between teachers.

The general problem to which this study was addressed was to investigate the management of interpersonal conflict between teachers in schools. The study was concerned with elementary grade school

principals and the methods they use to manage conflict between teachers on their respective staffs. With emphasis upon the three main variables of attitude toward conflict, leadership style, and methods of managing conflict, it was the purpose of the study to explore the possibility of existing relationships between the following variables: (1) the principal's leadership style, (2) the principal's attitude toward conflict, (3) the principal's methods of managing conflict, and (4) demographical factors pertaining to the principal and his school situation.

As a point of departure for the investigation of relationships between the four sets of variables cited above, the following proposition was used: School principals of varying leadership styles and attitudes toward conflict are likely to employ different methods for the management of conflict between teachers.

Fiedler's Least Preferred Coworker (LPC) rating scale was the instrument used to obtain a measure of the principal's leadership style. Because an Attitude Toward Conflict (ATC) measure was not available, an ATC instrument for measuring the attitude of principals toward conflict between teachers was developed with the aid of a pilot study involving 27 M.Ed. students enrolled in Educational Administration at the University of Alberta. Using the work of Blake and Mouton (1964) and Lawrence and Lorsch (1967) as a basis, a Methods of Management (MOM) instrument was developed with the aid of a panel of judges. The instrument was designed to measure five methods of conflict management called Forcing, Withdrawing, Compromising, Smoothing, and Confrontation.

Forty public schools at the elementary grade level in the city of Saskatoon, Saskatchewan, comprised the sample for the study. Questionnaires were used to collect all data, and to guarantee anonymity no identifying marks appeared on any of the questionnaires or on any of the envelopes in which the questionnaires were returned.

Frequency distributions, percentage frequency distributions, means, and standard deviations were used to present a preliminary analysis of the data collected from 38 principals and 310 teachers. Pearson product moment correlations, biserial correlations, and partial correlation procedures were used to explore relationships between the ATC, LPC, and MOM variables as well as between variables pertaining to the principals' age, years of post secondary education, years of specialization in Educational Administration, years of experience as a principal, years served as a principal in the present school, and number of full-time teachers on staff.

Significant positive correlations were found between the following pairs of variables: (1) age and experience, (2) age and years served in present school, (3) post secondary education and experience, (4) experience and years served in present school, (5) experience and Withdrawing, (6) LPC and Confrontation, (7) ATC-individual and ATC-organizational, (8) Compromising and Withdrawing, (9) Compromising and Forcing, (10) Withdrawing and Forcing, and (11) Withdrawing and Smoothing. Significant negative correlations were found between (1) experience and ATC-individual, (2) experience and Confrontation, (3) years served in present school and ATC-individual, (4) years served in present school and Confrontation,

(5) LPC and Forcing, (6) Confrontation and Withdrawing, and (7) Confrontation and Forcing.

High and low LPC-ATC groups of principals were examined in terms of differences in MOM variances and mean scores. A significant difference between the means of high LPC-ATC principals and low LPC-ATC principals on the variable of Confrontation was found with the high LPC-ATC group having the higher mean score. A statistically significant difference in variances on the Smoothing variable was also found with the low LPC-ATC group having the greater amount of variance in Smoothing scores.

Within LPC-ATC groups of principals MOM means ranged from low mean to high mean in the following order: (1) Forcing, (2) Withdrawing, (3) Compromising, (4) Smoothing, and (5) Confrontation.

The preliminary findings concerning principals' demographic data were interpreted to mean that many of the principals were relatively young, were highly educated and/or professionally trained, and had served relatively few years in their present schools which most often involved from 10 to 19 full-time teachers. The biographic data pertaining to teachers were interpreted to mean that teachers selected to describe their principal's behavior in managing conflict were most often female, were relatively young, and had spent relatively few years of their total years of teaching experience with their present principal. Almost two out of three teachers were classified by the researcher as generalists rather than subject-matter specialists. Post secondary educational backgrounds of the teachers appeared to vary greatly. Whether or not these demographic and

biographic factors had any significant effect upon the findings emerging from this study was left as an open question.

Principals' LPC scores appeared to indicate considerable variation in principals' leadership style and, with reference to Fiedler's definitions of high and low LPC scores, the 38 principals appeared to score relatively high as a group. Principals' ATC data were interpreted by the researcher as tending to uphold the contention that principals possess varying attitudes toward conflict between teachers and that such attitudes can be measured. The preliminary findings pertaining to methods of managing conflict appeared to support the proposition that principals use varying methods of managing conflict between teachers.

The level of significance adopted for the analysis of the data was the 5 percent level. Findings emerging from correlational procedures involving demographic variables indicated no statistically significant relationships between the demographic variables and the LPC variable, but correlational findings did indicate that the more experienced the principal and the longer the time served in his or her present school, the less favorable the principal's attitude toward conflict between teachers was likely to be when the conflict was considered in terms of individuals. Findings also indicated that an increase in principals' experience combined with an increase in years served in present school tended to result in less frequent use of the Confrontation method of conflict management and an increase in years served in present school, regardless of experience, tended to be accompanied by a decrease in use of the Confrontation method. However,

the greater the experience of the principal, the more often the Withdrawing method tended to be used.

The findings regarding possible relationships between LPC, ATC, and MOM appeared to indicate that LPC and ATC were independent or unrelated variables. However, correlations suggested that relationship-oriented principals were more likely to use the Confrontation method than task-oriented principals and less likely to use the Forcing method than task-oriented principals. No statistically significant relationships were found between ATC variables and MOM variables.

Findings appeared to indicate that as use of the Confrontation method by principals increased, use of the Withdrawing method decreased and use of the Forcing method decreased. However, findings were interpreted to mean that an increase or decrease in usage of any one of the three methods (Compromising, Withdrawing, or Forcing) was accompanied by an increase or decrease in usage of the remaining two methods and experienced principals who used either the Smoothing method or Withdrawing method tended to use the other also.

In examining the differences between MOM means and variances the data were interpreted to mean that high LPC-ATC principals more frequently used the Confrontation method of managing conflict between teachers than did the low LPC-ATC principals and that low LPC-ATC principals tended more toward extremes in the frequency with which they used the Smoothing method than did high LPC-ATC principals.

II. CONCLUSIONS

This study was concerned with conflict management in schools and examined the attitudes of principals toward conflict between teachers, the leadership styles of principals, the methods used by principals to manage conflict between teachers, and some demographic variables pertaining to principals.

Emerging from the basic problem of the study were two sub-problems:

1. Are there any relationships between the following variables: (1) attitudes of principals toward conflict, (2) the leadership styles of principals, (3) the principals' methods of managing conflict, and (4) demographic factors pertaining to the principals and their school situations?

2. Do principals of varying leadership styles and attitudes toward conflict employ different methods for the management of conflict between teachers?

The conclusions presented here may be regarded as an attempt by the researcher to answer the questions posed by the two sub-problems stated above. These positions or conclusions were arrived at on the basis of the evidence provided by this investigation. Although they may appear to be somewhat universal in their statement, the following conclusions refer only to the population represented by the sample:

1. Preliminary findings regarding LPC, ATC, and MOM data provided evidence for a conclusion of this study that principals of varying leadership styles do possess varying attitudes toward conflict

and do use different methods for managing conflict between teachers.

2. It was concluded that the more experienced the principal and the longer the time spent in his or her present school, the less favorable the principal's attitude toward conflict between teachers tends to be when the conflict is considered in terms of individuals.

3. It was concluded that an increase in principals' experience combined with an increase in years served in present school tends to result in less frequent use of the Confrontation method for managing conflict. It was also concluded that there is a stronger negative relationship between Confrontation and years served in present school than between Confrontation and principals' experience.

4. It was concluded that the greater the experience of the principal the more likely the Withdrawing method of managing conflict between teachers tends to be used.

5. It was concluded that there is no significant relationship between LPC and ATC variables.

6. It was concluded that the more relationship-oriented the principal (high LPC) the more likely Confrontation is used as a method of managing conflict between teachers and the more task-oriented the principal (low LPC) the less likely Confrontation is used as a method of conflict management.

7. It was concluded that the more relationship-oriented the principal (high LPC) the less likely Forcing is used as a method of conflict management and the more task-oriented (low LPC) the principal the more likely Forcing is used as a method of managing conflict between teachers.

8. It was concluded that as the use of the Confrontation method by principals increases, the use of the Withdrawing method tends to decrease, or vice versa.

9. It was concluded that as the use of the Confrontation method by principals increases, the use of the Forcing method tends to decrease, or vice versa.

10. It was concluded that an increase or decrease in the usage of any one of the Compromising, Withdrawing, or Forcing methods of conflict management tends to be accompanied by an increase or a decrease in usage of the remaining two methods.

11. It was concluded that principals who use either the Smoothing method or Withdrawing method also tend to use the other.

12. It was concluded that a significant positive relationship exists between the Forcing method and the Withdrawing method. However, no conclusion was reached regarding a possible explanation for this finding.

13. It was concluded that high LPC-ATC principals more frequently use the Confrontation method of managing conflict between teachers than do low LPC-ATC principals.

III. IMPLICATIONS

Although data provided by this investigation resulted in some statistically significant findings, it is recognized that much more empirical work is required before the findings of this study can be regarded as having universal relevance or applicability. Consequently, while any suggestions regarding implications for practicing educational administrators must be expressed very cautiously, the significant as well as some of the non-significant findings of this study appear to have direct implications regarding further research.

Implications for Practice

Although the literature reviewed presented arguments in support of the contention that social conflict is often functional and constructive as well as arguments in support of the contention that organizational conflict is often dysfunctional and destructive, none of the writers developed the argument that organizational conflict is of little importance or consequence. Boulding (1968) stated that administrators might attempt to coexist with conflict but there was no suggestion that they should view it as a rather inconsequential administrative phenomenon. Because it would appear that the variables with which this study was concerned are subject to change and to modification, an understanding of the variables and an explanation of relationships between them might be of considerable value for the successful administration of schools.

Findings in this study which would appear to have implications for practicing administrators are contained in the previous section

of this chapter which deals with conclusions. The conclusion that principals of varying leadership styles did possess varying attitudes toward conflict and did use different methods of managing conflict suggests that principals may have some control over ATC and MOM variables. It would seem reasonable to assume that a principal's attitude toward conflict and methods of managing conflict might significantly change during his or her career.

Because Fiedler (1967) has shown that leadership style (as indexed by LPC) may change over a period of time, the finding of significant relationships between LPC and Forcing and LPC and Confrontation in this study should not be considered as an argument against the possibility of principals having an opportunity to choose one method of managing conflict rather than another. Even if it could be assumed that a principal's particular leadership style causes the principal to use one method of managing conflict between teachers rather than another, it would appear that a principal can change his or her leadership style.

A greater understanding of leadership style, of attitude toward conflict, and of methods for managing conflict might contribute to the successful administration of schools by providing an opportunity for improving the performance of schools. With reference to the performance of schools, it should be noted that it was a conclusion of this study that high LPC-ATC principals more frequently use the Confrontation method of managing conflict between teachers than do low LPC-ATC principals. It was also concluded that low LPC-ATC principals are likely to use the Forcing method. In terms of effective school

administration and successful operations it then follows that practicing educational administrators should be concerned with the effect on school performance of the LPC, ATC, and MOM variables.

If, for example, methods of managing conflict could be related to school performance, the finding in this study that the greater the experience of the principal the more likely the Withdrawing method tends to be used would lead, perhaps, to a reassessment of whether experience is an asset or a liability to a principal. In the same way the conclusion of this study that an increase in principals' experience combined with an increase in years served in present school tends to result in less frequent use of the Confrontation method might lead to an examination of how long principals should be left in one school.

Implications for Research

Pondy (1969:503) arrived at the following conclusion: "That attitudinal measures involve considerable problems does not mean that attitudes are unimportant in the study of conflict." The findings of this study involving elementary school principals, however, appear to indicate that ATC variables were of less importance than the LPC variable in the search for interpretable relationships between attitudes, leadership styles, and methods of managing conflict. Whether a similar conclusion would emerge from studies involving, for example, large high school systems should be considered.

It might be conjectured, for example, that the types of differences and disagreements which add zest to activities and lead

to innovations and creativity are more likely to be found in larger, more impersonal organizational structures. Consequently, within the context of some large urban high school systems, the attitudes of principals toward conflict might be significantly different than the attitudes of principals found in this study.

While it would appear that leadership style, as indexed by LPC, is likely to vary significantly among any group of randomly selected principals either at the elementary school level or the high school level, there may be a difference between the two groups regarding MOM variables. McNamara (1968:349) contended that there are important differences between group processes in elementary and secondary schools. Elementary schools were viewed as relatively simple and easily controlled organizations while large high schools were seen as complex, multi-level organizations involving 40 to 80 teachers under Department Heads. It is conceivable, therefore, that other studies concerned with predominantly different demographic variables might find significantly different relationships between LPC-ATC-MOM variables.

Follett (1940), Bernard (1949), Coser (1956), and Boulding (1968) constitute only a few of the writers who have argued that conflict is often functional to an organization and that constructive methods of managing conflict should be employed. The findings of this study appear to support the contention that some principals have a more favorable attitude toward conflict between teachers than other principals have. The findings also support the contention that different principals use different methods of managing conflict

between teachers. However, more research should be undertaken in an attempt to determine whether a principal's attitude toward conflict between teachers is of any more importance than it appeared to be in this study and whether some methods of conflict management are more "constructive" than others.

Because the findings of this study were based on a sample of only 38 elementary grade schools, more empirical research might be undertaken in an attempt either to support or refute the conclusions of this study. While it appears that a great deal remains to be learned about all variables and relationships with which this study was concerned, further research regarding conflict management in schools may be more productive if the following questions and tasks are considered:

1. It should be possible to further develop and refine an instrument for measuring attitude toward conflict. The odd-even reliability coefficient of .55 for the ATC-individual instrument indicates that such a task should be undertaken.

2. Further development and refinement of the MOM instrument should be attempted. For example, perhaps the word, conflict, should not be included in the questionnaires and only the words, difference or disagreement, used. The significant positive relationship found in this study between Withdrawing and Forcing appears to support the contention that further investigation of whether the five methods of conflict management actually exist in the organizational world of public education and administration should be undertaken.

3. Accurate and precise information regarding demographic and

biographic information pertaining to principals and teachers should be sought. For example, the possibility of one sample being mostly comprised of teachers who are female generalists while another sample might be mostly comprised of teachers who are male specialists should be considered. The findings of this study, which was concerned with elementary grade schools, might be significantly different from the findings of studies concerned with high schools.

4. More precise information regarding the post secondary education of principals should be sought if the possibility of a relationship between LPC and the post secondary education of principals is explored further. This study found a non-significant correlation of -.27 between the two variables which would indicate that further investigation with more precise data might be justified.

5. Although this study found non-significant negative correlations of -.24 between the variables of principals' age and ATC-individual, and of only -.12 between principals' age and ATC-organizational, the direction of these findings appears to warrant further research. More precise data regarding the age of principals should be collected if further investigation is attempted.

6. Although no statistically significant correlations were found between ATC and MOM variables, a positive coefficient of .25 was found between ATC-individual and Confrontation and of .24 between ATC-organizational and Compromising. With further development and refinement of the ATC and MOM instruments, it might then be worthwhile to examine further the possibility of relationships between ATC and MOM variables.

7. The direction of relatively high positive, although non-significant correlations, found between Withdrawing and years served in present school and between Forcing and years served in present school indicate the possibility of a tendency among principals to increasingly use both the Withdrawing and Forcing methods as the number of years served in their present schools increases. More research might be attempted to further explore this possibility.

8. It was a conclusion of this study that high LPC-ATC principals more frequently used the Confrontation method of managing conflict between teachers than did the low LPC-ATC principals. Although no significant differences between means were found regarding use of the four other methods of managing conflict, the difference in means between the two groups of principals on the Forcing method came very close to attaining statistical significance. This study also found a significant negative correlation between Forcing and Confrontation, a significant positive correlation between LPC and Confrontation, and a significant negative correlation between LPC and Forcing. Consequently, further research regarding the possibility that principals of substantially different leadership styles and attitudes toward conflict tend to use different methods of managing conflict should be attempted.

9. Although it is conceivable that some of the five methods of managing conflict between teachers might be more popular with principals as a group than other methods, research might be undertaken to establish which methods are more prevalent than others in the administration of schools. The findings of this study indicated that

the Forcing method was least often used by principals as a group while the Confrontation method was most often used, however, more research involving tests of statistical significance should be attempted.

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APPENDICES

APPENDIX A

QUESTIONNAIRES

PART I - PRINCIPALS QUESTIONNAIRE

ATC SCORING KEY

PART II - TEACHERS QUESTIONNAIRE

CONFLICT MANAGEMENT
IN SCHOOLS

Introductory Guidelines to
the Questionnaire

This questionnaire, which consists of two parts, is concerned with conflict involving administrative and teaching personnel in your school. The focus of the questionnaire is upon the methods used by principals for managing situations of conflict which occur between two or more teachers.

Part I of the questionnaire is being responded to by principals and Part II is being responded to by teachers. Part I pertains to the principal's leadership style and to the principal's attitude toward conflict. Part II pertains to methods used by the principal in the management of conflict. Responses to the questionnaire items will not be examined by anyone except the researcher and his thesis advisors. Teachers and principals are not asked to reveal their personal identities and the entire research procedure preserves the anonymity of schools and of individuals.

The value of this study depends entirely on the participation of teachers and administrators such as yourself. Any reliable and valid insight provided by the questionnaire data does depend upon how carefully you consider each question as the questionnaire items are relatively few in number.

Significant findings of the study which pertain to principals as a group will be made available to you. Please accept my sincere thanks for your valuable time and cooperation.

E.L. Hurlbert

PART I - PRINCIPALS

SECTION I - PERSONAL INFORMATION

DIRECTIONS: Please circle the appropriate answers.

1. Your sex: male female

2. Your age:

under 21	30 - 39	50 - 59
21 - 29	40 - 49	over 59

3. Years of training or formal education completed beyond grade XII (post secondary education):

1	3	5
2	4	over 5

4. Years of training or specialization completed in post graduate Educational Administration:

1	3
2	over 3

5. Years of experience as a principal: (include the present school year)

1	4	7	10
2	5	8	11 to 20
3	6	9	over 20

6. Years served as a principal in your present school: (Include the present school year)

1	4	7	10
2	5	8	11 to 20
3	6	9	over 20

7. Number of full-time teachers (including Vice-principals and Dept. Heads) on your staff:

under 10	20 - 24	35 - 39
10 - 14	25 - 29	over 39
15 - 19	30 - 34	

8. Student grade levels operating in your school: (Please circle each grade for which you have students enrolled)

1 2 3 4 5 6 7 8

PART I - PRINCIPALS

SECTION 2 - LEAST PREFERRED CO-WORKER RATING SCALE

Administrators differ in the importance they attach to the traits of co-workers. These attitudes have been found to be related to the type of interaction that takes place between leaders and their staffs.

Below are pairs of words which are opposite in meaning, such as "pleasant" and "unpleasant". Think of, but do not name, the person with whom you can work least well. He or she may be someone you know now, or someone you knew in the past. He or she should be the person with whom you would have the most difficulty getting a job done.

Put a circle around the number indicating your rating of the relative position of your least preferred co-worker on each item.

Look at the words at both ends of the line before you mark your circle. Please remember that there are no right or wrong answers. Work rapidly, your first answer is likely to be the best. Please do not omit any items, and mark each item only once.

Pleasant	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Unpleasant
Friendly	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Unfriendly
Rejecting	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Accepting
Helpful	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Frustrating
Unenthusiastic	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Enthusiastic
Tense	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Relaxed
Distant	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Close
Cold	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Warm
Cooperative	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Uncooperative
Supportive	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Hostile
Boring	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Interesting
Quarrelsome	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Harmonious
Self-Assured	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Hesitant
Efficient	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Inefficient
Gloomy	--1--:--2--:--3--:--4--:--5--:--6--:--7--:--8--	Cheerful
Open	--8--:--7--:--6--:--5--:--4--:--3--:--2--:--1--	Guarded

PART I - PRINCIPALS

SECTION 3 - ATTITUDE TOWARD CONFLICT

The items in this questionnaire identify various possible consequences or outcomes of interpersonal conflict between teachers in schools.

For purposes of this research a conflict situation is defined as one in which there exists difference or disagreement between two or more teachers. The term, teachers, refers not only to full time teachers but also to part time administrators such as department heads and assistant principals. Although the causes of conflict may be varied and complex, this questionnaire is concerned with differences and disagreements between teachers whatever the underlying causes may be.

Each of the items below makes reference to a specific possible consequence or outcome of conflict between teachers. You are asked to judge how frequently the consequence or outcome, referred to in each item, is likely to result from conflict situations between two or more teachers.

DIRECTIONS:

a. READ the item carefully.

b. THINK about how frequently the consequence or outcome expressed in the item is likely to result.

c. DECIDE whether the consequence or outcome is likely to result (A) very frequently, (B) often, (C) occasionally, (D) seldom, or (E) very rarely.

d. DRAW A CIRCLE around one of the five letters (A B C D E) following each item to show the answer you have selected.

A = Very Frequently

B = Often

C = Occasionally

D = Seldom

E = Very Rarely

Example: The item refers to a consequence or outcome which is likely to result Very Frequently . . (A) B C D E

The item refers to a consequence or outcome which is likely to result Very Rarely . . . . A B C D (E)

A = Very Frequently

B = Often

C = Occasionally

D = Seldom

E = Very Rarely

1. Conflict between teachers adds constructive zest to their professional activities . . . . . A B C D E

2. Conflict between teachers impedes organizational effectiveness . . . . . A B C D E

3. Conflict between teachers results in more benefits for education than costs . . . . . A B C D E

4. Instead of acting as a safety-valve mechanism, expressed conflict between teachers leads to the emergence of undesirable blowups such as resignations or staff feuds . . . . . A B C D E

5. Conflict between teachers discourages essential communications between them . . . . . A B C D E

6. Conflict between teachers leads to constructive reviews of existing policies or practices . . . . . A B C D E

7. Conflict between teachers is ineffective as a means of bringing about needed change . . . . . A B C D E

8. A teaching staff which is devoid of conflict leads to undesirable complacency among teachers . . . . . A B C D E

9. Conflict between teachers reduces their loyalty or support for the school . . . . . A B C D E

10. Conflict between teachers results in progressive ideas superior to those which existed prior to the conflict . . . . . A B C D E

A = Very Frequently

B = Often

C = Occasionally

D = Seldom

E = Very Rarely

11. The administrative technique of deliberately nuturing conflict between teachers as a means of motivating them to action decreases organizational performance . . . . . A B C D E

12. Conflict between teachers leads to undesirable competition . . . . . A B C D E

13. When all factors are considered, conflict between teachers is constructive . . . . . A B C D E

14. Conflict between teachers leads to more effective communications between them . . . . . A B C D E

15. Conflict between teachers lowers their morale . . . . . A B C D E

SCORING KEY FOR THE ATC INSTRUMENT

I. THE ATC-INDIVIDUAL DIMENSION

A = Very Frequently
B = Often
C = Occasionally
D = Seldom
E = Very Rarely

1.	Conflict between teachers adds constructive zest to their professional activities	A	B	C	D	E
		5	4	3	2	1
4.	Instead of acting as a safety-valve mechanism, expressed conflict between teachers leads to the emergence of undesirable blowups such as resignations or staff feuds	A	B	C	D	E
		1	2	3	4	5
8.	A teaching staff which is devoid of conflict leads to undesirable complacency among teachers	A	B	C	D	E
		5	4	3	2	1
10.	Conflict between teachers results in progressive ideas superior to those which existed prior to the conflict	A	B	C	D	E
		5	4	3	2	1
11.	The administrative technique of deliberately nurturing conflict between teachers as a means of motivating them to action decreases organizational performance	A	B	C	D	E
		1	2	3	4	5
12.	Conflict between teachers leads to undesirable competition	A	B	C	D	E
		1	2	3	4	5

II. THE ATC-ORGANIZATIONAL DIMENSION

2.	Conflict between teachers impedes organizational effectiveness	A	B	C	D	E
		1	2	3	4	5

A = Very Frequently
B = Often
C = Occasionally
D = Seldom
E = Very Rarely

3.	Conflict between teachers results in more benefits for education than costs	A B C D E 5 4 3 2 1
5.	Conflict between teachers discourages essential communications between them	A B C D E 1 2 3 4 5
6.	Conflict between teachers leads to constructive reviews of existing policies or practices	A B C D E 5 4 3 2 1
7.	Conflict between teachers is ineffective as a means of bringing about needed change	A B C D E 1 2 3 4 5
9.	Conflict between teachers reduces their loyalty or support for the school	A B C D E 1 2 3 4 5
13.	When all factors are considered, conflict between teachers is constructive	A B C D E 5 4 3 2 1
14.	Conflict between teachers leads to more effective communications between them	A B C D E 5 4 3 2 1
15.	Conflict between teachers lowers their morale	A B C D E 1 2 3 4 5

CONFLICT MANAGEMENT
IN SCHOOLS

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the Questionnaire

This questionnaire, which consists of two parts, is concerned with conflict involving administrative and teaching personnel in your school. The focus of the questionnaire is upon the methods used by principals for managing situations of conflict which occur between two or more teachers.

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The value of this study depends entirely on the participation of teachers and administrators such as yourself. Any reliable and valid insight provided by the questionnaire data does depend upon how carefully you consider each question as the questionnaire items are relatively few in number.

Significant findings of the study which pertain to principals as a group will be made available to you. Please accept my sincere thanks for your valuable time and cooperation.

E.L. Hurlbert

PART II - TEACHERS

PERSONAL INFORMATION

DIRECTIONS: Please circle the appropriate answers.

1. Your sex: male female

2. Your age: under 21 30 - 39 50 - 59
21 - 29 40 - 49 over 59

3. Years of training or formal education completed beyond grade XII (post secondary education):

1	3	5
2	4	over 5

4. Years served with your present principal (Do not include the years you may have worked together when he or she was not your principal. Include the present school year):

1	4	7	10
2	5	8	11 to 20
3	6	9	over 20

5. Your years of experience as a teacher (Include the present school year):

1	4	7	10
2	5	8	11 to 20
3	6	9	over 20

6. Grade level(s) at which you presently teach:

1	3	5	7
2	4	6	8

7. The nature of your current major teaching assignment:

Example: Grades 7 and 8 science

(Please use the space provided below)

_____

PART II - TEACHERS
METHODS OF MANAGING CONFLICT

This questionnaire is concerned with the way in which your principal manages or handles conflict between teachers who are employed as members of your school's teaching staff.

For purposes of this research a conflict situation is defined as one in which there exists difference or disagreement between two or more teachers. The term, teachers, refers not only to full time teachers but also to part time administrators such as department heads and assistant principals. Although the causes of conflict may be varied and complex, this questionnaire is concerned with differences and disagreements between teachers whatever the underlying causes may be.

Each of the questionnaire items below describes a specific kind of behavior for handling conflict but does not ask you to judge whether the behavior is desirable or undesirable. Please do not evaluate the items in terms of "good" or "bad" behavior but read each statement carefully and respond in terms of how frequently your principal acts in the way described.

DIRECTIONS:

a. READ the item carefully.

b. THINK about how frequently your principal engages in the behavior described by the item.

c. DECIDE whether he or she (A) always, (B) often, (C) occasionally, (D) seldom or (E) never acts as described by the item.

d. DRAW A CIRCLE around one of the five letters (A B C D E) following the item to show the answer you have selected.

A = Very Frequently or Always
B = Often
C = Occasionally
D = Seldom
E = Very Rarely or Never

e. Please answer <u>each</u> item with <u>one</u> circle only.

Example: My principal always or very frequently acts as described . . . . . (A) B C D E

Example: My principal never or very rarely acts as described . . . . . A B C D (E)

A = Very Frequently or Always

B = Often

C = Occasionally

D = Seldom

E = Very Rarely or Never

1. My principal handles conflict between teachers both by recognizing its existence and working with those involved to carefully consider both old and new ideas . . . . . A B C D E

2. My principal handles conflict between teachers by an automatic attempt to find a course down the middle that splits the difference . . . . . A B C D E

3. My principal handles conflict between teachers by steering clear of or retreating from all situations of conflict whenever possible . . . . . A B C D E

4. My principal handles conflict between teachers by using authority, penalties, or sanctions to settle it as quickly as possible . . . . . A B C D E

5. My principal handles conflict between teachers by actively promoting harmonious relationships . . . . . A B C D E

6. My principal handles conflict between teachers by encouraging the antagonists to review all policies and practices pertinent to the issue . A B C D E

7. My principal handles conflict between teachers by urging everyone to give in on something but no one to give in on everything . . . . . A B C D E

8. My principal handles conflict between teachers by hoping that time will make it go away . . . A B C D E

A = Very Frequently or Always
B = Often
C = Occasionally
D = Seldom
E = Very Rarely or Never

9. My principal handles conflict between teachers by giving more recognition to hierarchical position than to knowledge or expertise . . . . A B C D E

10. My principal handles conflict between teachers by making bad news appear bright . . . . . A B C D E

11. My principal handles conflict between teachers neither by avoiding it nor discouraging it but by encouraging all involved in the conflict to have the "facts" before indulging in criticism or accusation . . . . . A B C D E

12. The proverb, "better half a loaf than no bread", describes the way my principal handles conflict between teachers . . . . . A B C D E

13. My principal handles conflict between teachers by using the "ostrich strategy" . . . . . A B C D E

14. My principal handles conflict between teachers by attempting to quash it . . . . . A B C D E

15. My principal handles conflict between teachers by trying to coax or humor people out of it . . A B C D E

16. The proverb, "by digging and digging the truth is discovered", describes the way my principal handles conflict between teachers . . . . . A B C D E

17. In handling conflict between teachers my principal will bargain regardless of which side is right . . . . . A B C D E

18. The proverb, "don't stir up a hornet's nest", describes the way my principal handles conflict between teachers . . . . . A B C D E

19. The proverb, "if you cannot make a man think as you do, make him do as you think", describes the way my principal handles conflict between teachers . . . . . A B C D E

20. My principal handles conflict between teachers by trying to defuse it through the use of cheerful optimism . . . . . A B C D E

A = Very Frequently or Always

B = Often

C = Occasionally

D = Seldom

E = Very Rarely or Never

21. The proverb, "seek till you find and you'll not lose your labor", describes the way my principal handles conflict between teachers . . A B C D E

22. My principal handles conflict between teachers by implying through word and deed that nothing can be done about it . . . . . A B C D E

23. The proverb, "might overcomes right", describes the way my principal handles conflict between teachers . . . . . A B C D E

24. The proverb, "kill your enemies with kindness", describes the way my principal handles conflict between teachers . . . . . A B C D E

25. The proverb, "you scratch my back, I'll scratch yours", describes the way my principal handles conflict between teachers . . . . . A B C D E

26. My principal handles conflict between teachers by remaining aloof from it . . . . . A B C D E

27. The proverb, "soft words win hard hearts", describes the way my principal handles conflict between teachers . . . . . A B C D E

28. My principal handles conflict between teachers by use of an open problem solving approach which both allows and encourages those involved in the conflict to work through their differences or disagreements . . . . . A B C D E

APPENDIX B

QUESTIONNAIRES AND TABLES
PERTAINING TO THE PILOT
STUDY AND PANEL OF
JUDGES

THE ATC HANDOUT

TABLE 17 - ATC CLARITY RATINGS

THE MOM HANDOUT

TABLE 18 - MOM CLARITY RATINGS

TABLE 19 - MOM IDENTIFICATIONS

ATTITUDE TOWARD CONFLICT

SECTION I

The items in this questionnaire identify various possible consequences or outcomes of interpersonal conflict between teachers in schools. For purposes of this research a conflict situation is defined as one in which there exists difference or disagreement between two or more teachers. The term, teachers, refers not only to full time teachers but also to part time administrators such as department heads and assistant principals.

Each of the items below makes reference to a specific possible consequence or outcome of conflict between teachers. You are asked to judge how frequently the consequence or outcome, referred to in each item, is likely to result from conflict situations between two or more teachers.

DIRECTIONS:

a. READ the item carefully.

b. THINK about how frequently the consequence or outcome expressed in the item is likely to result.

c. DECIDE whether the consequence or outcome is likely to result (A) very frequently, (B) often, (C) occasionally, (D) seldom, or (E) very rarely.

d. DRAW A CIRCLE around one of the five letters (A B C D E) following each item to show the answer you have selected.

A = Very Frequently

B = Often

C = Occasionally

D = Seldom

E = Very Rarely

Examples: The item refers to a consequence or outcome which is likely to result Very Frequently . . (A) B C D E

The item refers to a consequence or outcome which is likely to result Very Rarely . . . . A B C D (E)

1. Conflict between teachers adds constructive zest to organizational activities . . . . . A B C D E

2. Conflict between teachers impedes organizational effectiveness . . . . . A B C D E

3. Conflict between teachers results in desirable aggressiveness . . . . . A B C D E

4. Conflict between teachers results in more costs than benefits . . . . . A B C D E

A = Very Frequently

B = Often

C = Occasionally

D = Seldom

E = Very Rarely

5. Conflict between teachers acts as a safety-valve mechanism preventing the emergence of more serious blowups . . . . . A B C D E

6. Conflict between teachers discourages essential communications . . . . . A B C D E

7. Conflict between teachers leads to constructive reviews of existing policies or practices . . . . . A B C D E

8. Conflict between teachers is ineffective as a means of bringing about needed change . . . . . A B C D E

9. A teaching staff which is devoid of conflict leads to undesirable complacency among teachers . . . . . A B C D E

10. Conflict between teachers reduces their loyalty or support for the school . . . . . A B C D E

11. Conflict between teachers results in progressive ideas or problem solutions superior to those which existed prior to the conflict . . . . . A B C D E

12. The administrative technique of deliberately nuturing conflict between teachers as a means of motivating them to action decreases organizational performance . . . . . A B C D E

13. Conflict between teachers leads to desirable competition . . . . . A B C D E

14. In the final analysis, conflict between teachers is destructive . . . . . A B C D E

15. Conflict between teachers leads to more effective communications . . . . . A B C D E

16. Conflict between teachers lowers their morale . . . . . A B C D E

ATTITUDE TOWARD CONFLICT

SECTION II

Listed below are the 16 questionnaire items to which you have just responded. You are asked to perform two tasks described as follows:

1. Below each item is an eight-point scale upon

which you are requested to rate each item in terms of its clarity, i.e., whether the item contains any ambiguous or obscure meanings. Please draw a circle around the number which indicates your rating of the item in terms of its clarity.

Example: The item is not ambiguous or obscure but is clear in its meaning.

NOT CLEAR 1 2 3 4 5 6 7 (8) CLEAR

2. Below the eight-point scale provided for each item is a space in which you are asked to indicate how the items which lack clarity might be improved. Your suggested corrections regarding the use of particular words or phrases which affect the item's clarity will be appreciated.

1. Conflict between teachers adds constructive zest to organizational activities.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

2. Conflict between teachers impedes organizational effectiveness.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

3. Conflict between teachers results in desirable aggressiveness.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

4. Conflict between teachers results in more costs than benefits.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

5. Conflict between teachers acts as a safety-valve mechanism preventing the emergence of more serious blowups.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

6. Conflict between teachers discourages essential communications.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

7. Conflict between teachers leads to constructive reviews of existing policies or practices.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

8. Conflict between teachers is ineffective as a means of bringing about needed change.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

9. A teaching staff which is devoid of conflict leads to undesirable complacency among teachers.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

10. Conflict between teachers reduces their loyalty or support for the school.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

11. Conflict between teachers results in progressive ideas or problem solutions superior to those which existed prior to the conflict.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

12. The administrative technique of deliberately nuturing conflict between teachers as a means of motivating them to action decreases organizational performance.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

13. Conflict between teachers leads to desirable competition.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

14. In the final analysis, conflict between teachers is destructive.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

15. Conflict between teachers leads to more effective communications.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

16. Conflict between teachers lowers their morale.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

Table 17

Clarity Ratings by 26 Pilot Study Respondents for 16 ATC-Questionnaire Items

Respondents	Items															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5	6	8	6	6	8	7	7	6	7	7	6	8	8	8	7
2	6	7	7	8	7	8	7	7	8	8	8	7	8	8	7	7
3	6	7	8	3	8	8	8	8	8	8	7	8	8	6	8	8
4	8	8	4	3	8	8	8	8	8	8	7	8	5	8	6	8
5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
6	5	6	6	7	2	7	7	7	7	7	7	6	7	1	7	7
7	8	8	4	4	4	8	8	8	8	8	8	8	8	6	8	8
8	6	7	6	8	7	4	8	8	8	8	8	7	8	8	6	8
9	7	7	7	8	8	2	8	8	7	8	8	8	7	7	3	8
10	8	8	8	8	6	8	8	7	8	8	8	4	8	8	8	8
11	8	7	8	6	6	7	7	8	7	8	7	8	7	8	7	8
12	7	4	2	2	8	8	7	3	5	7	7	8	7	8	7	8
13	8	8	8	8	8	8	8	8	8	8	1	8	1	8	8	8
14	7	7	4	7	5	7	7	6	7	7	7	6	7	7	6	6
15	8	8	8	6	6	8	8	8	7	7	8	8	8	7	8	4
16	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
17	6	7	6	4	6	8	7	7	5	7	6	6	8	7	7	8
18	7	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7
19	8	8	6	8	8	6	8	8	8	4	8	8	8	5	4	8
20	8	8	8	6	8	8	8	8	8	8	8	8	8	8	8	8
21	8	5	8	8	6	8	8	8	8	8	8	8	8	8	8	8
22	3	7	4	5	3	6	7	7	7	7	3	3	6	6	6	7
23	7	7	6	5	5	7	8	8	7	8	7	6	7	8	8	8
24	6	7	8	8	8	7	8	7	6	8	8	8	8	7	7	8
25	8	8	1	1	5	8	8	8	8	8	6	8	4	8	8	8
26	7	7	2	3	3	7	7	7	7	7	7	7	4	7	7	7
Totals	181	185	160	155	164	186	198	192	189	195	182	185	181	185	183	196

METHODS OF MANAGING CONFLICT

This questionnaire is concerned with the management of conflict between teachers who are employed as members of a school's teaching staff. For purposes of this research a conflict situation is defined as one in which there exists difference or disagreement between two or more teachers. The term, teachers, refers not only to full time teachers but also to part time administrators such as department heads and assistant principals.

Empirical research and the literature indicate that five general but different methods for handling or managing conflict between teachers may be used by principals. Each of these five methods is named and described on the following page. Please read carefully the description for each method of conflict management.

After having read the descriptions for the five methods of conflict management, you may wish to extract that page to use as a convenient reference when responding to the questionnaire items which follow.

A. FORCING METHOD

To use the Forcing Method for the management of conflict is to handle conflict by employing authority, penalties, or sanctions. Inherent in the use of this method is the suppression of conflict and conflict is suppressed when its expression is prevented.

B. WITHDRAWING METHOD

To use the Withdrawing Method for the management of conflict is to handle conflict by steering clear of or retreating from all situations of conflict whenever possible. Inherent in the use of this method is an attempt to ignore all conflict situations by not displaying any overt concern or manifest action pertaining to conflictive issues.

C. COMPROMISING METHOD

To use the Compromising Method for the management of conflict is to handle conflict by yielding, twisting, turning, and bending in an attempt to find a course down the middle that splits the difference. Inherent in the use of this method is the search for an expedient means of automatically splitting the difference by an accommodation in which no one "wins all" but no one "loses all".

D. SMOOTHING METHOD

To use the Smoothing Method for the management of conflict is to handle conflict by promoting harmonious and accepting relationships among personnel. Inherent in the use of this method is an active attempt to accentuate the positive aspects of a situation and play down or smooth over all negative aspects.

E. CONFRONTATION METHOD

To use the Confrontation Method for the management of conflict is to handle conflict through the use of an open problem solving approach which both allows and encourages those involved in the conflict to work through the ideological and emotional components of the disagreement. Inherent in the use of this method is the attempt to achieve an objective exploratory examination and evaluation of differences so as to find a solution which is more oriented to the long-term interests of everyone concerned rather than to temporary expediency.

DIRECTIONS:

Listed on the pages to follow are 36 items each of which is thought to reflect one of the five methods of conflict management described previously. With reference to each item and the five methods of conflict management you are asked to do the following:

1. Indicate which method of managing conflict the item is indicative of or best reflects. Do this by using the appropriate symbol of A, B, C, D, or E, in the space provided at the end of each item.

KEY:
A. Forcing
B. Withdrawing
C. Compromising
D. Smoothing
E. Confrontation

Example: The item is indicative of the Forcing Method . . . . . A

2. When an item appears to reflect more than one method of conflict management please indicate this by placing a second (and if necessary a third) appropriate symbol after your first choice.

Example: The item is indicative of the Forcing Method and of the Smoothing Method . . . . . A D

3. Below each item is an eight-point scale upon which you are asked to rate each item in terms of its clarity, i.e., whether the item itself contains any ambiguous or obscure meanings. Please draw a circle around the number which indicates your rating of the item in terms of its clarity.

Example: The item is not ambiguous or obscure but is clear in its meaning.

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

4. Below the eight-point scale provided for each item is a space in which you are asked to indicate how the items which lack clarity might be improved. This space may be used for suggested corrections regarding an item which reflects more than one method of conflict management or suggested corrections regarding the use of particular words or phrases affecting an item's clarity.

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

1. The proverb, "a question must be decided by knowledge and not by numbers, if it is to have a right decision", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

2. My principal handles conflict between teachers by urging everyone to give in on something but no one to give in on everything . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

3. My principal handles conflict between teachers by hoping that time will make it go away . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

4. My principal handles conflict between teachers by giving more recognition to hierarchical position than to knowledge or expertise . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

5. My principal handles conflict between teachers by making bad news appear bright . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

6. My principal handles conflict between teachers by using the "ostrich strategy" . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

7. My principal handles conflict between teachers by trying to coax or humor people out of it . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

8. My principal handles conflict between teachers both by recognizing its existence and working with those involved to carefully consider both old and new ideas . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

9. My principal handles conflict between teachers by attempting to quash it . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

10. My principal handles conflict between teachers by searching for a solution based on appeasement . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

11. The proverb, "he loses least in a quarrel who keeps his tongue in cheek", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

12. My principal handles conflict between teachers by trying to defuse it through the use of cheerful optimism . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

13. My principal handles conflict between teachers by encouraging the antagonists to review all policies and practices pertinent to the issue . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

14. The proverb, "tit for tat is fair play", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

15. My principal handles conflict between teachers by both immediately and firmly dealing with those involved . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

16. My principal handles conflict between teachers by using a cautious but systematic approach in which winners and losers cannot be easily predicted . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

17. The proverb, "when two quarrel, he who keeps silence first is the most praiseworthy", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

18. The proverb, "better half a loaf than no bread", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

19. My principal handles conflict between teachers by allowing the "chips to fall" where they may in creating a victor and a vanquished . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

20. The proverb, "kill your enemies with kindness", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

21. My principal handles conflict between teachers neither by avoiding it nor discouraging it but by encouraging all involved in the conflict to have the "facts" before indulging in criticism or accusation . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

22. The proverb, "don't stir up a hornet's nest", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

23. In handling conflict between teachers my principal will bargain regardless of which side is right . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

24. The proverb, "if you cannot make a man think as you do, make him do as you think", describes the way my principal handles conflict between teachers . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

25. The proverb, "soft words win hard hearts", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

26. My principal handles conflict between teachers by implying through word and deed that nothing can be done about it . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

27. The proverb, "the arguments of the strongest always have the most weight", describes the way my principal handles conflict between teachers . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

28. My principal handles conflict between teachers by hastily opting for concessions . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

29. The proverb, "when one hits you with a stone, hit him with a piece of cotton", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

30. My principal handles conflict between teachers by using it as a means of bringing about needed change . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

31. The proverb, "by digging and digging the truth is discovered", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

32. My principal handles conflict between teachers by adopting a stance of passive leniency . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

33. The proverb, "might overcomes right", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

A. Forcing B. Withdrawing
C. Compromising D. Smoothing E. Confrontation

34. The proverb, "you scratch my back, I'll scratch yours", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

35. My principal handles conflict between teachers by remaining aloof from it . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

36. The proverb, "seek till you find and you'll not lose your labor", describes the way my principal handles conflict between teachers . . . . . _____

NOT CLEAR 1 2 3 4 5 6 7 8 CLEAR

Table 18

Clarity Ratings by a Panel of 10 Judges
for 36 MOM Questionnaire Items

(N = 10)

Items	Judges										Totals
	1	2	3	4	5	6	7	8	9	10	
1	7	3	5	6	6	8	6	4	7	7	59
2	8	5	7	8	8	8	7	8	8	8	75
3	8	8	8	6	8	8	7	8	8	8	77
4	8	8	8	6	8	8	6	8	8	8	76
5	8	8	8	7	8	8	8	8	8	8	79
6	8	8	8	7	8	8	7	8	7	5	74
7	2	5	7	8	7	8	5	8	8	8	66
8	8	8	8	8	8	8	8	8	8	8	80
9	8	8	8	7	8	8	3	8	8	8	74
10	1	2	7	8	2	8	6	6	8	6	54
11	1	1	2	7	6	1	7	6	2	5	38
12	8	3	7	7	8	8	7	7	8	7	70
13	8	8	8	7	8	8	6	8	8	8	77
14	2	6	4	6	2	8	2	5	2	5	42
15	8	7	7	8	1	8	6	5	8	8	66
16	7	2	8	3	7	8	7	7	2	8	59
17	7	2	3	6	1	5	5	6	2	7	43
18	8	8	7	6	8	8	6	8	4	8	71
19	1	8	4	6	1	8	6	7	3	8	52
20	7	8	3	6	8	8	4	7	2	5	58
21	8	8	8	6	8	8	6	8	8	8	76
22	8	8	7	6	6	8	4	7	7	7	68
23	8	2	8	7	8	5	5	7	8	8	66
24	8	8	8	8	8	8	7	8	2	8	73
25	8	8	8	6	8	8	6	8	4	8	72
26	8	8	6	7	8	8	6	7	8	8	74
27	8	2	7	4	7	8	7	6	3	8	60
28	2	1	7	6	8	1	5	7	8	8	53
29	6	4	4	5	8	8	6	5	4	8	58
30	8	6	5	7	7	6	6	8	6	8	67
31	8	8	6	7	8	8	8	7	8	8	76
32	7	5	6	4	7	8	3	8	6	8	62
33	8	8	7	8	8	8	3	8	7	8	73
34	8	8	3	8	7	8	4	8	7	6	67
35	8	8	7	8	8	8	5	8	8	8	76
36	2	8	2	7	8	8	5	6	5	8	59

Table 19

Choices Made by a Panel of 10 Judges in Relating 36 MOM Items to 5 Methods of Managing Conflict (all choices other than a judge's first choice are contained in parentheses)

	Panel of Ten Judges									
Items	1	2	3	4	5	6	7	8	9	10
1	E	E(C-D)	A(E)	E	E	E	A	A(E)	E	E
2	C	C(D)	C	C	C	C	C	C	C	C
3	B	B	B	B	B	B	B	B	B	B
4	A	A	A	A	A	A	A	A	A	A
5	D	D	D	D	D	D	D	D	D	D
6	B	B	B	B	B	B	B	B	B	B
7	D(B)	D	D	D	D	D	B	D	D	E
8	E	E	E	E	E	E	E	E	E	E
9	A	A	A	A	A	A	?	A	A	A
10	C(D)	D(C)	C(D)	C	C(D)	C	D	C(D)	D	C
11	B	B(D)	B	B	B	B(C)	A	B	B	D
12	D	D	D	D	D	D	D	D	D	D
13	E	E	E	E	E	E	C	E	E	E
14	C	C	C	A	E(C)	E	?	C	C	A
15	A	A	E(A-C-D)	A	C(A)	A	E	A(E)	A	A
16	B	E	E	E(C-D)	C	C	C	C	E	E
17	B	B(D)	?	B	B	D	A	B	B	B
18	C	C	C	C	C	C	C	C	C	C
19	?	B	B(A-E)	A	A(B)	E	D	B	E	E
20	D	D	D	D	D	D	D	D	D	D
21	E	E	E	E	E	E	E	E	E	E
22	B	B	D	B	B	B	?	B	B	B
23	C	C(E-A)	C	C	C	C	B	C	C	E
24	A	A	A	A	A	A	A	A	D	A
25	D	D	D	A	D	D	D	D	D	D
26	B	B	B	B	B	B	C	B	B	A
27	A	C(A)	A	C(A)	A	A	A	A	D	A
28	C(D)	B(C-D)	C	C	C	C(D)	?	C	C	C
29	B	D(B)	D(B)	D	D	D	A	D	B	D
30	E	E(A)	E	E	E	A	C	E	D	D
31	E	E	E	E	E	E	E	E	E	E
32	B	B(D)	B(D)	B(D)	B	D	?	B	D	B
33	A	A	A	A	A	A	?	A	A	A
34	C	C	C(D)	C	C	C	B	C	C	C
35	B	B	B	B	B	B	E	B	B	B
36	E	E	?	E	E	E	E	E	E	E

APPENDIX C

CORRESPONDENCE

RE:

Dr. Burke

Dr. Gathercole

Dr. Wickstrom

COPY

173 Royal Road
Lord Byron Place
Edmonton 73
January 12, 1973

Dr. R.J. Burke
Faculty of Administrative Studies
York University, Toronto
Ontario

Dear Dr. Burke:

I am enrolled in a Ph.D. program in Educational Administration at the University of Alberta. My thesis is concerned with the management of conflict in public education and I am considering the use of the Lawrence and Lorsch instrument which you refer to in "Methods of Resolving Superior-Subordinate Conflict" as published in Organizational Behavior and Human Performance. 5, 393-411 (1970)

I have access to the Lawrence-Lorsch work as outlined in Organization and Environment, 1967, and in the Administrative Science Quarterly, 1967, 12, 1-47. However, I require more information regarding the validity and reliability of the 25-proverb-instrument.

Would you please advise me as to where I might obtain that information? I would appreciate any assistance you can provide. Thank you.

Yours truly,

E.L. Hurlbert

COPY

YORK UNIVERSITY

FACULTY OF ADMINISTRATIVE STUDIES

4700 Keele Street, Downsview 463, Ontario, Canada

Mr. E.L. Hurlbert
173 Royal Road
Lord Byron Place
Edmonton 73
Alberta

January 17th, 1973

Dear Mr. Hurlbert,

I did not address the questions you mentioned in your letter in my own research. In addition, I can't think of any other person who has. I suggest that these might be incorporated into your own thesis research. I'm sorry I can't be more helpful. Good luck with the thesis.

Sincerely,

(Sgd.) Ronald J. Burke
Professor

COPY

SASKATOON BOARD OF EDUCATION

405 Third Avenue South, Saskatoon, Saskatchewan
S7K 1M7

January 23, 1973.

Mr. E.L. Hurlbert,
173 Royal Road,
Lord Byron Place,
EDMONTON, Alberta.
T6J 2E7

Dear Mr. Hurlbert:

I wish to acknowledge your letter, which apparently arrived some time ago but which has just come to my attention.

In a recent reorganization of responsibility in our administrative offices, Dr. R.A. Wickstrom, Superintendent of Planning, Development, and Research, has been given the responsibility of reviewing all requests for information from staff members and to make the necessary arrangements with researchers who may be conducting studies. I have passed your letter over to him. You should hear from him shortly.

Yours sincerely,

(Sgd.) F.J. Gathercole,
DIRECTOR OF EDUCATION,
SASKATOON PUBLIC BOARD OF
EDUCATION.

FJG:la

COPY

173 Royal Road
Lord Byron Place
Edmonton 73
January 31, 1973

Dr. R.A. Wickstrom
Superintendent of Planning,
Development, and Research
Saskatoon Board of Education
405 Third Avenue South
Saskatoon, Saskatchewan

Dear Dr. Wickstrom:

Following our telephone conversation of Tuesday, January 30, and acceptance of my thesis proposal by my Committee today, I am sending you some excerpts from the proposal and copies of the questionnaires which will be used for the study.

I will contact you by telephone on Monday afternoon to pursue those possibilities of data collection which we talked about the other day but did not finalize.

With your permission to conduct the research, I could be in Saskatoon Tuesday, February 6, with the questionnaires. My Committee has requested that I ask all teachers in the five largest schools to respond to the teacher questionnaires. Would this meet with your approval? In the remaining schools ten teachers, where possible, would be asked to respond.

I plan to have each respondent place his completed questionnaire in an envelope which after being sealed will be handed into the principal or secretary. I will then collect the sealed envelopes at each school.

If you wish to contact me for any reason, please call collect to 434-1859. Thank you for your assistance in this project.

Sincerely,

E.L. Hurlbert

ELH/mh
Encl.

COPY

173 Royal Road
Lord Byron Place
Edmonton 73
February 26, 1973

Dr. R.A. Wickstrom
Superintendent of Planning,
Development and Research
Saskatoon Board of Education
405 Third Avenue South
Saskatoon, Saskatchewan.

Dear Dr. Wickstrom:

Thank you for your assistance and for your helpful suggestions regarding my data collection within your school system.

I am grateful to you, your assistants, the principals, and the teachers for the much appreciated cooperation and support which I received. Although some teachers insisted that the questionnaires did not apply to their situation because they never experienced difference or disagreement, the response was very good. Only one principal among the forty whose cooperation was requested returned all questionnaires, including his own, without a single response on any of them. Only in one other school did we fail to receive sufficient teacher response for utilization of data from that school in the study.

Thank you again for your help and encouragement and I will provide you with a copy of the thesis when it is completed.

Sincerely yours,

E.L. Hurlbert

ELH/mh

APPENDIX D

NON-SIGNIFICANT PARTIAL CORRELATIONS

INVOLVING LPC-ATC-MOM VARIABLES

Table 20

Statistically Non-Significant Zero-Order, First-Order, Second-Order, Third-Order, and Fourth-Order Partial Correlations involving LPC, ATC, and MOM Variables

(N = 38)

Order of Correlation	LPC(x) and ATC-IND(y)	LPC(x) and ATC-ORGAN(y)	LPC(x) and COM(y)	LPC(x) and WIT(y)	LPC(x) and SMO(y)	ATC-IND(x) and CON(y)	ATC-IND(x) and COM(y)	ATC-IND(x) and WIT(y)	ATC-IND(x) and FOR(y)
rxy	-.01	-.08	-.14	-.26	.09	.25	.11	-.11	-.11
rxy.1	-.01	-.08	-.15	-.27	.10	.22	.16	-.10	-.15
rxy.2	-.04	-.09	-.16	-.25	.17	.25	.12	-.10	-.13
rxy.3	-.08	-.14	-.12	-.22	.13	.10	.22	.12	-.02
rxy.4	-.07	-.11	-.15	-.24	.10	.09	.14	.00	.00
rxy.12	-.04	-.09	-.16	-.25	.17	.25	.12	-.10	-.13
rxy.13	-.08	-.14	-.12	-.22	.13	.10	.22	.12	-.02
rxy.14	-.07	-.11	-.15	-.24	.10	.09	.14	.00	.00
rxy.23	-.08	-.14	-.12	-.22	.13	.10	.22	.12	-.02
rxy.24	-.07	-.11	-.15	-.24	.10	.09	.14	.00	.00
rxy.34	.02	-.11	-.15	-.24	.10	.15	.24	.01	.00
rxy.123	-.08	-.14	-.12	-.22	.13	.10	.22	.12	-.02
rxy.124	-.07	-.11	-.15	-.24	.10	.09	.14	.00	.00
rxy.134	.02	-.11	-.15	-.24	.10	.15	.24	.01	.00
rxy.234	.02	-.11	-.15	-.24	.10	.15	.24	.01	.00
rxy.1234	.02	-.11	-.15	-.24	.10	.15	.24	.01	.00

Table 20 (continued

Order of Correlation	ATC-IND(x) and SMO(y)	ATC-ORGAN(x) and CON(y)	ATC-ORGAN(x) and WIT(y)	ATC-ORGAN(x) and FOR(y)	ATC-ORGAN(x) and SMO(y)	CON(x) and COM(y)	CON(x) and SMO(y)	COM(x) and SMO(y)	FOR(x) and SMO(y)
rxy	-.00	.18	.05	-.00	.18	-.03	.11	.28	-.24
rxy.1	.03	.17	.06	-.01	.20	-.01	.14	.27	-.23
rxy.2	.02	.18	.05	-.00	.20	-.03	.12	.30	-.21
rxy.3	.09	.07	.25	.06	.26	.05	.23	.26	-.31
rxy.4	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.12	.02	.18	.05	-.00	.20	-.03	.12	.30	-.21
rxy.13	.09	.07	.25	.06	.26	.05	.23	.26	-.31
rxy.14	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.23	.09	.07	.25	.06	.26	.05	.23	.26	-.31
rxy.24	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.34	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.123	.09	.07	.25	.06	.26	.05	.23	.26	-.31
rxy.124	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.134	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.234	.01	.11	.11	.06	.19	-.02	.15	.29	-.27
rxy.1234	.01	.11	.11	.06	.19	-.02	.15	.29	-.27

For zero-order correlations to be significant at .05 level for a two-tailed test the critical value of r is .320.

rxy.1 Principals' age partialed out.
rxy.2 Principals' years of post secondary education partialed out.
rxy.3 Principals' experience partialed out.
rxy.4 Years served by principal in present school partialed out.
rxy.12 Principals' age and principals' years of post secondary education partialed out.